FLATNESS TRANSFORMED AND OTHERNESS EMBODIED

A STUDY OF JOHN HEJDUK'S DIAMOND MUSEUM AND WALL HOUSE 2 ACROSS THE MEDIA OF PAINTING, POETRY, ARCHITECTURAL DRAWING AND ARCHITECTURAL SPACE

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SUMMARY

To study architectural space in relation to other works of art, the author aims at understanding how meaning depends upon the medium within which it is formulated. More importantly, the process of re-stating a work from one medium to another requires analytically rigorous study at the level of design thinking. In this thesis, Piet Mondrian's sixteen *Diamond Compositions*, George Braque's *Studio Series*, and Jean Auguste Dominique Ingres's *Comtesse d'Haussonville* will be studied as points of departure of John Hejduk's two sets of architectural projects: the *Diamond Series* and the *Wall House Series*. Compositional similarities among these works will be discovered as the design means of Hejduk's architecture. Moreover, these paintings suggest two design ends: C flatness and otherness. Hejduk's poems about paintings and his architectural drawings will be examined as working media in which the two design ends are formulated. On this basis, the *Diamond Series* and the *Wall House Series* will be analyzed once again on the basis of how flatness and otherness are constructed in architectural space. In a way, Hejduk defines his own design means in the medium of architecture. It is noted that the re-statement of meaning in the medium of architecture involves both a retrospective understanding of the spatial structure and an embodied experience of the immediate spatial condition. Only when space makes sense independent of the references back to existing works in other media such as painting or poetry and the key design move is made will the readings of such works become architectural concepts. In the media of painting, poetry, architectural drawing, and architectural space, John Hejduk designs intention in its own right as part of the design process. Therefore, working across media entails far more than superficial references or

fanciful representations. Rather, it is a serious investigation into the construction of medium-specific meaning, which the work of Hejduk clearly exemplifies. For the same reason, Hejduk's work can be understood beyond personal or mystical expressions, becoming a tangible, logical, and thereby shared construction.

CHAPTER 1
INTRODUCTION

John Hejduk (1929-2001) is a key figure in the history of American architecture in the late Twentieth Century. Hejduk intellectually links the early modernists, such as Le Corbusier, to the most contemporary architects, such as Daniel Libeskind and Elizabeth Diller[1]. As one of the *Texas Rangers*, one of the *New York Five*, and the Dean of the Cooper Union, Hejduk continuously experimented in multiple media, such as painting, poetry, architectural drawing and architecture. However, most studies of Hejduk's work, although acknowledging his interdisciplinary thinking in architecture, do not delve deeply into this aspect of his work. Thus, neither his way of thinking nor his systematic intentions behind his thinking are fully understood. This research will analyze, at the level of design thinking, the interdisciplinary thinking mode exemplified in the work of Hejduk and discuss his work as the outcome of systematic intentions rather than circumstantial decisions. The process of thinking across media must include the notion of conceptualization, the abstraction of concepts that mediate between the original work and related work across media. Thus, we must ponder how Hejduk's thinking across media as a system facilitates our understanding of architectural conceptualization. At the same time, this research will develop a methodology whereby one can read Hejduk's work analytically with respect to specific media.

[1] At the time when Hejduk went to the Cooper Union to study architecture, Corbusier and Mies were very influential. Hejduk studied their work and then explored their architectural languages in his early work such as the Texas Houses, forming a strong intellectual bond with them. Daniel Libeskind and Elizabeth Diller studied under Hejduk in the Cooper Union. Superficially the connection is based on co-existence in an institution but the intellectual connection is undeniable through the education of an architect. Later, the building of Wall House 2 in Groningen was a result of Libeskind's invitation of Hejduk's participation.

1.1 Questions

Architects not only work across different media, such as drawings, models, renderings, and real architectural space, but also continuously seek architectural ideas from other media, such as paintings, sculpture, film, novels, and dance. In other words, the creation of architectural space is not limited within the boundaries of physical space. We call this phenomenon interdisciplinary thinking, which Hejduk incorporates into his work.

The question that underlies the inquiry of Hejduk's interdisciplinary thinking mode is how meaning is medium specific. In other words, how does Hejduk construct meaning in the media of painting, poetry, architectural drawing and architecture? How is the construction of meaning in one medium, such as painting, poetry or drawing, reflected as a system in the construction of meaning in another medium such as architecture?

These questions become even more interesting when they are situated in the time of Hejduk's early works, such as the *Diamond Series* (1963-67) and the *Wall House Series* (1968-74). These two series were designed as the revolutionary myth of modernism started to fade. A social and panoramic experience of architecture reveals the emergence of a relatively personal and intimate experience of architecture. As Colin Rowe questions in the introduction to *Five Architects* (1975), "Is it necessary that architecture should be simply a logical derivative from functional and technological facts; and indeed, can it ever be this? … Is the architect simply a victim of circumstances? And should he be? Or may he be allowed to cultivate his own free will? And are not culture and civilization the products of the imposition of will?" (Rowe 1975, 7)

Five years later in 1977, Alan Colquhoun engaged in the same discussion, addressing the issue of the tension between form and figure. To him, the fundamental dialectic if the Modern Movement "no longer seems to be that between form and function but that between form and another entity," which he referred to as "figure" (Colquhoun 1985, 190). According to Colquhoun, "form" is "a configuration that is held to have either a natural meaning or no meaning at all" (Colquhoun 1985, 190). "Figure" is "a configuration whose meaning is given by culture, whether or not it is assumed that this meaning ultimately has a basis in nature" (Colquhoun 1985, 190-91). When Hejduk borrowed the works from other media as the departure point of architectural design, it also borrowed meaning from culture in the first place. However, at this moment, it is too early to assert that Hejduk's work exemplifies the agony with formalism[2] merely by its interdisciplinary nature. Le Corbusier also thought across media as he himself was a painter, a poet, and an architect, but one may not see the agony in his case. We have to detect the agony, if there is any, within Hejduk's work.

Therefore, this thesis asks two related questions. One question is, how does meaning depend upon the medium within which it is formulated? This question is brought to the fore by the interdisciplinary nature of Hejduk's approach to architectural design. It requires us to examine Hejduk's interdisciplinary thinking not so much from the point of view of individual works but rather from the point of view of the symbolic systems within which

[2] On the one hand, Hejduk was "trapped" by the formalism of the dominant environment of the time during which he was growing as an architect. He always viewed his work as an extension of earlier architects. On the other hand, he attempted to rebel and to define his own design system.

meaning becomes possible. The other question concerns the work of Hejduk in its own right. Can it be understood as an expression of agony with formalism as one may suspect when situating it in its historic context? The second question is motivated by the specific time and circumstances of Hejduk's interdisciplinary thinking. It addresses the characteristics of Hejduk's approach in thinking across media.

1.2 Thesis

1.2.1 Partial Re-stating: Art as Understanding

Thinking across various media involves the process of "partial re-stating." The essence of re-stating is to view art with regard to how one understands it, which involves a constructive way of understanding. That is, to understand how a statement was built in the original work and how it would be built in the new work. Therefore, the connection among all the works ostensibly related to the same statement is made through construction and not through mere recognition. It is one step further than merely reading existing similarities among works.

To propose partial re-stating is not equivalent to accepting that meaning can be translated from one symbolic medium to another. The meaning of each mark or symbol used in a symbolic system depends on the relations it sustains to other symbols and marks. Thus, there can be no dictionary for directly translating symbols and marks that belong to one system into symbols and marks that belong to another (Langer, 1942, 96). Instead, using a work in one symbolic system as a point of departure for constructing a work in another provides an opportunity for becoming more explicitly aware of the manner in which

meaning is constructed in each. Hence, the partial re-stating of ideas, insights or feelings across symbolic systems can function as a trigger for an almost experimental interrogation of the systems themselves. The tension between works in different symbolic systems makes it less likely that a designer will manipulate his own symbolic system uncritically and automatically; thus, the design will be less fettered by stereotypes.

Partial re-statement involves a formulation process that defines what to achieve in the final work. First, it not only depends on what is explicitly stated in the original work but also, more importantly, on what we are looking for. The latter leads us to approach an original work with a previously established motive. That is, we are specifically motivated to partially perceive the original work and thus to partially re-state it.

Second, a formulation of intention is embedded in the re-stating process. In the case of Hejduk one can postulate that the insights gained from looking at the paintings, working in architectural drawings as well as writing poems, can be used to explain parts of Hejduk's brief for designing buildings. The term "brief" is used here in the sense proposed by Michael Baxandall (1985): The brief comprises the design intentions introduced by a designer in the process of design and is to be contrasted to the "charge", that is the set of requirements that are given to a designer at the outset. We will discuss the notions of charge and brief as the detailed analyses go on.

Seeking to establish relationships between works in different symbolic media does not imply that the meaning of each work is taken to reside in its ability to refer to another. Each work will be considered in its own right. The tension between works in different media must be

studied not from the point of view of reference, but rather from the point of view of design language. How does a designer construct a language that can respond to specific intentions, drawing inspiration from the manner in which language is deployed in other media?

1.2.2 How Architecture Means

Before we proceed to understand re-stating meaning in the medium of architecture, we have to understand how architecture means. Architecture can deny neither its symbolic aspects nor its practical aspects. The nature of architecture demands that it negotiates between these two aspects. A building is not merely a shelter that protects or a container that functions, but a place that has significance, meaning, reference, and symbolism. As Nelson Goodman argued, it is only then that a building becomes a work of art.[3] The foundation of this thesis, therefore, is to analyze how architecture stands as a piece of artwork.

Other philosophers have recognized the symbolic function of architecture. One of them is Susanne K. Langer, who distinguishes "arrangement of space" from "creation of space." (Langer, 1953, 94) The latter, she asserts, is a virtual entity, "the primary illusion of plastic art effected by a basic abstraction peculiar to architecture." (Langer, 1953, 94) She points out that symbolic function is not the arrangement of space that suggests something to do, but an illusion created by "the visible expression of a feeling, sometimes called 'atmosphere.'" (Langer, 1953, 99)

[3] As pointed out by Goodman in *How Buildings Mean*, formalists' argument that pure art must be free of all symbolism "rests upon a cramped conception of reference."

If meaning is necessary for architecture to be a work of art, then we must determine how architecture can have meaning. Goodman proposes three concepts as elementary varieties of symbolization in art: denotation (representation), exemplification, and expression. According to Goodman, "Denotation includes naming, predication, narration, description, exposition, and also portrayal and all pictorial representation--indeed, any labeling, any application of a symbol of any kind to an object, event, or other instance of it." (Goodman 1992, 369) "Denotation is the core of representation and is independent of resemblance." (Goodman 1976, 5) Architecture is basically an abstract art as modern abstractionistic painting is, so it does not mean in the way of literal referencing to other objects. Instead, architecture means through referencing to properties. "Reference by a building to properties possessed either literally or metaphorically is exemplification, but exemplification of metaphorically possessed properties is what we more commonly call 'expression.'" (Goodman 1992, 372) To minimize the confusion, as Goodman does, we use "exemplification" as short for "literal exemplification" and reserve "expression" for metaphorical cases. This distinction clarifies how a purely formal construction of space may mean although it does not express any feelings or ideas in that pure form, literally meaning "exemplifying its formal properties."

From the point of view of a designer who composes architecture, the question of "how architecture means" can be asked in a more active mode, "how meaning is constructed in architecture." However, a designer does not construct meaning directly but instead constructs space in the physical world. (Other aspects of architecture besides space that can be constructed are color, texture, and icon; however, this research will deal with its very

essence, space.) The medium of physical space specifies an architect's realm, which differentiates architect from other artists' that work in such realms as music, painting, sculpture, dance, and film, although the ways in which architecture means may conform to other forms of art. Meaning is medium specific. Now, the question is narrowed down to "how meaning is constructed through the construction of space," the fundamental question of this thesis.

What is as intriguing is how such metaphorical possession is established, how the expression is built into literal properties, for what we are operating on are physical properties even though what we want to express are thoughts beyond these properties. In other words, we infer what can be understood by working on what can be seen or otherwise perceived and experienced.

There is an objectivity of the relationship between expression and physical properties. As Goodman argues, "expression, since limited to what is possessed in addition to what has been acquired second-hand, is doubly constrained as compared with denotation. Whereas almost anything can denote or even represent almost anything else, a thing can express only what belongs but did not originally belong to it." (Goodman 1976, 89) Then, what can be objectified in the relationship between thoughts and physical properties? They seem to be linked with the idea of form. According to Langer, the meaning of "form" is beyond its common connotation of shape. (Langer 1953, 23) Form is more than geometric; it is a set of logical relationships, like thoughts, which may thus share a common form with physical construction. That is, thoughts and construction may exemplify the same logic. Thus, the form of thoughts and the form of construction are related because they are analogous. This

explains why our thoughts and feelings are not normally understood as shapes, but we experience certain feelings when we see, for example, tension between the lines in Kandinsky's paintings.

Furthermore, in embedding expression and exemplification in designs, we have an additional problem of how to direct attention to the pertinent properties. For example, in a sample of fabric, how do we direct attention to the nature of the fabric and the color rather than the dimensions of the patches? Similarly, in architecture, how do we direct attention to the structure of space in some situations and the measurement of space in others? We will attempt to answer these questions in this thesis.

1.2.3 Re-statement in the Medium of Architecture

If architectural meaning is more relevant to exemplification and expression than denotation, re-statement across media involves two kinds of meanings: 1) commonly exemplified qualities and 2) commonly expressed concepts and feelings. Exemplified qualities consist of different levels. What is exemplified and is then re-stated could be literally shared properties. For example, a composition in painting may be re-stated as a composition in architecture – a straightforward connection from the visual to the visual. Another case might involve a certain structure embedded in a non-visual art, which may be registered visually and spatially in architecture. For example, rhythm in music (measure and punctuation of time) may be re-stated in architecture as the occurrence of spatial changes or of suggested movement changes (measure and punctuation of space). However, this is a less straightforward

connection because it is a transition from non-visual to visual art. An even less straightforward case occurs when what is literally exemplified is more qualitatively complex. For example, one may read Juan Gris' *Still Life* as an exemplification of frontally-aligned objects in a shallow, abstract space and then embed his or her own architecture in this quality. This quality is not achieved through measurement, nor can the composition of the painting be directly borrowed. The architect must find a unique language rooted in the medium of architecture to exemplify the same quality. Further, one may abstract the qualities in Gris' *Still Life*, as Colin Rowe and Robert Slutzky did, by formulating the concept of phenomenal transparency. This is the moment when exemplification moves towards expression in that it involves abstraction of thought.

Besides what is exemplified, how something is expressed is also important. This involves a mechanism in which specific exemplification leads to specific expression. For example, a study of the relationship between Eisenstein's film form and its expression may lead to a design of a space that embeds both form and expression. As re-statement is a media-specific construction of meaning, we must understand not only the specific medium that involves meaning but also the mechanism that relates exemplification to expression so that the new work may express concepts or feelings.

1.2.4 Meaning and Its Related Notions: Concept, Feeling and Structure

The phenomenon of interdisciplinary thinking of architecture involves spatial meaning and the construction of spatial meaning, which refers to meanings that are rooted in the

understanding of space. In other words, while we construct space we are, in fact, constructing spatial meaning if we have clear intentions. Meanwhile, the construction of spatial meaning is not limited within a physical space. Other media, such as painting and poetry, are also relevant to spatial meaning. Thus, spatial meaning can be re-stated across media.

Two kinds of meanings are concepts and feelings. The former are logical while the latter are not. According to Langer, a concept is a logical form of various appearances of situations that involve recurrent objects and relationships and that require abstraction (Langer c1967, 35-36). "Feeling, in the broad sense of whatever is felt in any way, as sensory stimulus or inward tension, pain, emotion or intent, is the mark of mentality." (Langer 1967, 4) However, this definition of feeling is so broad that it blurs with what we normally call sensations. In fact, although feeling is triggered in the process of sensation, feeling itself is non-sensory. (Baensch 1968, 12)

Langer differentiates between concept and feeling through the distinction between the speakable and the unspeakable, "that everything which is not speakable thought, is feeling." (Langer 1979, 87) This statement suggests that feeling can be a mental state or an awareness of a mental state but that it cannot be an understanding of a mental state. After all, understanding involves logic, which is contrary to the nature of feeling. Understanding also requires consciousness while a feeling arises but not through conscious effort. Thus, actual feeling differs from the concept of feeling. In terms of re-statement, neither mere feelings nor concepts are strong enough constraints. Thus, feeling is an arcane notion since it is not

only intangible but also unspoken. Feeling can interact with thought, and be triggered through levels of comprehension that involve the elaboration of sensations.

This study bears full awareness that actual feeling differs from the understanding of feeling. Certain feelings that come to us belong to the former category, but other feelings, ones that are expressed in a work of art, belong to the latter category. According to Otto Baensch, actual feeling is subjective while the understanding of feeling is objective (Baensch 1968, 10). However, these two are not separate since the acknowledgement of the feeling expressed in a work of art depends on whether it elicits feelings in the viewers. The reason they are differentiated is to clarify the focus. The feeling it elicits requires that we focus on the audience while the feeling it expresses requires that we focus on both the work of art and the audience. The latter is the focus of this current study.

Both concepts and feelings can be expressed through physical qualities. In essence, since both concept and feeling are non-physical properties that involve expression, a concept or a feeling expressed in an original piece of art work may be expressed in the medium of architecture.

"The bridge that connects all the various meanings of form–from geometric form to the form of ritual or etiquette–is the notion of *structure*." (Langer 1953, 24) Introducing the notion of structure emphasizes not only the logical aspect of meaning but also, more importantly, the constructive nature of meaning. "The logical form of a thing is the way that thing is constructed, the way it is put together. Any thing that is a definite form is constructed in a definite way." (Langer 1953, 24)

Understandably, a concept embeds a structure so that it may have physical connotations. For example, Peter Eisenman's Romeo and Juliet Project for Venice Biennale 1985 expresses the concept of love in three structural relationships: division, union, and the dialectical relationship between the two lovers. These relationships are drawn from the original Romeo and Juliet narrative but do not embed in the form of the novel. They are thoughts that are highlighted in the narrative and that embed strong physical connotations of structure. However, the concept of love is different from the feeling of love. That one understands division, union, and dialectical relationships as logical relationships of love does not necessarily mean that one is in love. The concepts of love represent distanced understanding. The feelings of love are internalized states.

1.2.5 Spatial Meaning Within the Medium of Architecture: Body and Metaphor

If architecture can be read in the same way paintings and poems are read, as statements of concepts, then how does an architectural concept differ from a concept in a painting or a poem? Among the many relevant concepts are abstract and intellectual principles that become embedded in the construction of a work. Architectural concepts may be principles that govern the construction of objects in a certain way. For example, the concept of symmetry and certain rules derived from this concept may govern the construction of a Frank Lloyd Wright house. In this case, the constructive concepts may be general enough to

guide the construction of a painting, a sculpture, or a piece of music.[4] Meanwhile, the medium of architecture demands spatial experience and the communication of experience, and thus to the notion of body, which refers to the human body. It is through the embodied experience that one can understand the difference between looking at a model and moving in a real building. Thus, body is crucial in architecture not only because it is the carrier of all kinds of sensations but also, more specific to architecture, because the situated body is the basis from which the viewer experiences and then comprehends space. Therefore, although abstract principles can be applied both in architecture and in other forms of art, such as painting and poetry, the notion of body separates the medium of architecture from many other forms of art.

However, we cannot assert if Hejduk, who was interested in concepts in architecture, necessarily considered matters of experience and embodied communication of meaning in any way. We can only guess that perhaps he did. In *The Flatness of Depth*[5], Hejduk most obviously points out the difference between being outside a building and being inside of it.

> "Architecture can be observed both from a distance and internally (close-up); we can become internally ingested by it, become part of its interior. Instead of just being an outside observer or an outside spectator, we can become part of its very interior organism. We become physical-organic participators; we become enclosed." (Hejduk 1985, 69)

[4]An example of such analyses can be found in "Subsymmetry analysis of architectural designs: some examples," *Environment and Planning B: Planning and Design 2000*, volume 27, pp. 121-136, by Jun-Ho Park,
[5] Mask of Medusa, pp.68-69

Architectural space is occupied by bodies so that its meaning is contingent upon what is inferred and experienced through such occupancy. This leads to the discussion on another preliminary idea: metaphor. The theory of embodied metaphor is proposed by George Lakoff and Mark Johnson to explain how spatial quality leads to spatial meaning (Lackoff and Johnson, c1999). Asserting that the construction of metaphor is rooted in spatial experience, Lakoff and Johnson state that "metaphor is not merely a linguistic expression (a form of words) used for artistic or rhetorical purposes; instead, it is a process of human understanding by which we achieve meaningful experience that we can make sense of. A metaphor, in this 'experiential' sense, is a process by which we understand and structure one domain of experience in terms of another domain of *a different kind*." (Johnson 1987, 15) This definition embodies the spatial and experiential aspect of metaphor. Metaphor describes the process in which sensations structured by the body are projected onto concept and feeling.

Since the mind is embodied, abstract thought develops from embodied experience through metaphor.[6] A detailed development of Lakoff and Johnsons's theory of metaphor follows. Much of the way we conceptualize subjective experiences, such as desire, affection, intimacy, and achievement, "reasoning about them, and visualizing them comes from other domains of experience. These other domains are mostly sensorimotor domains, as when we conceptualize understanding an idea (subjective experience) in terms of grasping an object (sensorimotor experience) and failing to understand an idea as having it go right by us or over our heads. The cognitive mechanism for such conceptualization is conceptual metaphor,

[6] The source of criticism to their theory lies in whether philosophy can be boiled down to those "root metaphors" proposed by Lakoff and Johnson, and whether their denying that metaphorical thought (1) is discursive and (2) ever involves a perception of similarity. However, the general argument stands.

which allows us to use the physical logic of grasping to reason about understanding." (Lakoff 1999, 45)

Moreover, Johnson distinguishes metaphorical extension as opposed to metaphorical projection in general. Metaphor establishes connections across domains. As Johnson argues, since metaphor is rooted in embodied experience, the metaphorical connection is rooted within the bodily domain. However, the other end of this connection may or may not remain in the bodily domain. When describing the connection that leads "from the physical to the nonphysical." (Johnson 1987, 34) Johnson uses the word "extension," which stresses the shift. For example, the metaphor of balance is based on how we keep physical balance of our body. When we refer to the balance of a visual composition, we are in fact projecting the structure from the domain of gravitational forces onto another domain of spatial organization in visual perception. When we refer to the balance of life, the projection crosses the physical boundary and becomes a metaphorical extension.

If metaphor leads to meaning and is rooted in space, then embodied experience in space can be used as a conscious device that achieves spatial meanings, the hypothesis of this thesis. Following this hypothesis, the mechanism of understanding interdisciplinary thinking turns to be the understanding of construction of spatial metaphor. However, metaphor is, by no means, assumed an a-priori framework to understand Hejduk's work. In fact, the ideas introduced here and in the previous section might be challenged by Hejduk's work. Their explanatory power as well as their ability to reveal something interesting about the work might be limited. They may also evolve and be modified in the course of research. Thus,

introducing the ideas is simply a way of asking questions about Hejduk's architectural concepts rather than presenting pre-determined ideas about his work.

1.3 Literature Review

1.3.1 In Search of a Framework of Interpretation

As a result of the profound nature of Hejduk's work, existing literature includes a wide range of discussions, mainly of two types. One is documentary, in which Hejduk's work is reported as fact. For instance, the book *The Riga Project* (1989) records the construction process of the Riga Project in the Great Hall of the University of the Arts in Philadelphia. The other type of discussion is interpretation, in which Hejduk's work is either read in his own terms, as if he himself were restating his ideas in more detail, or his work is elaborated in others' philosophical framework even though Hejduk himself did not explicitly make such statements. The majority of discussions of Hejduk's work are of the latter kind.

Hejduk's work, such as designs and books, has been subject to interpretation and discussion since 1955. As Hejduk often shifted his positions of inquiry in architecture, scholars have shifted their criticisms. Hejduk first drew critical attention for the design of a 1,370,000 square-foot shopping center that he and three fellow student architects designed in a Harvard master's course in 1955. (Hejduk, Hoffer, and Toomath, Architects 1955) This work was regarded as a space not only where consumers could buy and retailers could sell, but also where the community could gather, the latter activity of which was gradually lost in suburban life at that time. This was the only attention Hejduk's work received in the 1950s.

Since Hejduk remained relatively unnoticed in the 1950's and the 1960's, few articles were written about his work during that time.

In the early 1970's, however, Hejduk began to attract more attention as one of the *New York Five*. In the introduction of *Five Architects* (1975), Kenneth Frampton, discussing Hejduk's work among works of Gwathmey, Graves, Eisneman and Meier, noted three key characteristics of their work. First, he noted that Hejduk's House 10 of 1966 suggests strong frontality while Charles Gwathmey's residence and studio does not. Other work, such as Peter Eisenman's House I, Michael Graves' Hanselmann house and Richard Meier's Smith house, combine frontality and rotation, leaving them in unresolved conflict. Second, Frampton noted completeness versus incompleteness of form, stating that in "the Graves and Meier houses and in the Eisenman pavilion, there is an 'erosion' of the surface, or of the structure, or of the mass, or of all three." (Frampton 1975, 12) Third, Frampton noted inflation in the scale of their work, stating that they "imply much larger structures, and at first glance it is difficult to assess their true size, since they are all shown without any anthropomorphic key." (Frampton 1975) The general scale of these works suggests to Frampton that they are "models" for larger buildings.

The emergence of Hejduk's new projects, such as the *Diamond Projects*, the *Wall Houses*, and the renovation of the Foundation Building at Cooper Union, attracted more criticism from different angles. Scholars tried to interpret Hejduk's contribution in their own terms. The intriguing quality of Hejduk's work started to draw attention. Robert Stern's "America Now: Drawing Towards a More Modern Architecture" appeared in 1977, followed by "Structures for the Imagination" by Richard Prommer (Prommer 1978) and "Art: Architectural

Drawings. The Grace of Fine Delineation" (1978), and Stanley Abercrombie's "Big in the '70s: Architectural Drawings" (Abercrombi 1980).

Meanwhile, Hejduk's work led people to question the boundaries of architecture. In 1980, Ada Louise Huxtable referred to Hejduk as a mystic and a poet (Huxable 1980). In 1981, Franz Schulze recognized him as an architect and a sculptor (Schulze 1981). In 1985, David Shapiro, the poet who worked with Hejduk until he died, discussed Hejduk as a character with an ability to cross the genres of architecture, poetry, and pedagogy. (Shapiro 1985)

The publication of *Mask of Medusa* (1985), a comprehensive collection of Hejduk's work from 1947 to 1983, led to several book reviews and considerable discussion in 1985, including Peter Eisenman's speculation on the mystical power in Hejduk's work. (Eisenman 1986) In the same year, Alberto Perez Gomez first discussed the nature of Hejduk's projects from the vantage point of body. (Perez Gomez 1986) Between this publication in 1985 and the building of Wall House 2 in Groningen, Netherlands, in 2001, Hejduk's new projects were the focus of broad discussion, some of which examined Hejduk's work within the framework of Serialism (Kaji-O'Grady 1998) as well as the avant-garde (Muschamp 1988) and most of which agreed that Hejduk was a conceptualist whose practice and theory were unconventional with a strong conceptual aspect. Among the publications in this period was the only book of essays published on Hejduk's work, *Hejduk's Chronotope*, edited by Michael K. Hays and published in 1996.

From October 1997 to February 1998, the exhibition, *Other Soundings: Selected Works by John Hejduk, 1954-1997*, was presented at the Canadian Center for Architecture in Montréal,

Canada. It was considered "the first major retrospective traces the themes that have always preoccupied John Hejduk: architecture as a social act, the wall, the house, the church, passage and transformation, the experience of the city".[7] This exhibition was composed of six sections that presented a comprehensive review of Hejduk's work, including his earlier projects such as *Texas House* (1954-1963), *Diamond House* (1963-1967) and *Wall House* (1968-1974), his drawings from 1995, which were further explorations of his Wall Houses, his illustrated books, Cathedrals from *Victims* and other built works. In conjunction with this exhibition, two documentary videos were presented. One is *The Collapse of Time*, a built work in London, and the other was *John Hejduk: Builder of Worlds*, an interview conducted by David Shaprio. In the interview, Hejduk revealed his thoughts on architecture, which have always been obscure and little understood in a conventional sense, with answers to the following questions: Why would an architect draw angels? How has poetry been used in your work? These examples along with a portion of the interview are published in A+U in 1991.

During this period, an amount of collections of Hejduk's work were published. We can only mention a few here. Among the publications, some are works from exhibitions, such as *Masques* (1981), *John Hejduk, works, 1950-1983* (c1983); *John Hejduk, práce* (1991), *Berlin Night* (c1993); Some are records of built projects, most of which are installations, such as *John Hejduk: the Riga project: November 20 – December 22, 1987* (c1989), *The Collapse of Time and Other Diary Constructions* (c1987); Some are collection of project series, such as *Eight Lithographs* (1990), *Aesop's Fables* (1991), *Victims : a work* (1986). A unique series of books of Hejduk's is his sketches of mysterious watercolors and stark lines. They are, *Soundings: a work* (1993), *Architectures in Love: sketchbook notes* (1995), *Adjusting Foundations* (1995), *Pewter Wings, Golden*

[7] http://cca.qc.ca/New_Site/ehibitions/hejduk.html as of 3/25/2003.

Horns, Stone Veils: wedding in a dark plum room (1997). Another series of three books are Hejduk's poems, which we will address in detail in Chapter 1. They are *The Silent Witnesses and Other Poems* (1980), *Such Places as Memory : poems, 1953-1996* (1998) and *Lines : no fire could burn* (1999).

The death of Hejduk in 2000 and the construction of the Wall House 2 in 2001 triggered another wave of discussion of his work. Scholars and architects such as James McGregor, Wim van den Bergh, Arthur Wortmann, Marijke Martin, Diane Lewis, Kenneth Frampton, Peggy Deamer, Peter Eisenman, Shigeru Ban, and Tod Williams, published articles on Hejduk in 2000 and 2001. These articles focused on Hejduk's later works and on the newly constructed wall house in Groningen. However, no one has yet attempted to summarize Hejduk's work in its entirety because it is so profound. Most widely agree that Hejduk is both an artist who expresses impulses from within and a thinker whose deep thoughts weigh heavily in his designs. These notions were expanded at the symposium "Machines For Living (with Angels)" in October 2002, the exhibition "Sancturies: The Last Works of John Hejduk" at the Whitney Museum of Art in New York City, and the publication of the book *Sanctuaries: The Last Works of John Hejduk* (2002). At the symposium, Hejduk's work was the subject of intensive discussion. K. Michael Hays, curator of the exhibition, introduced talks by Michael Bell, Jim Williamson, and Toshiko Mori. The focus of Bell's talk was Hejduk's redefinition of the relationship between subject and space in his *Diamond* and *Wall Houses* and how it influenced his work. Williamson, together with his students at Georgia Tech, worked on Hejduk's "House of the Suicide" and "House of the Mother of the Suicide," and discussed these projects and some of the allegorical and semiotic issues of Hejduk's work. Mori, who studied under Hejduk at Cooper Union and who wrote the preface to the

Whitney exhibition catalogue, discussed the allusions to Hejduk's *Enclosures* series and his ideas on the social function of architecture. In publications, Hejduk's works are kept being revisited until now.

From the brief review of previous discussions on Hejduk's work, we have noted the importance of the framework of interpretation, crucial not only because it posits a theoretical structure in which Hejduk's work is examined but also because the framework determines the methodology of research. In turn, methodology determines the level on which the interpretation is carried out. Two major levels of interpretation are that of abstract theory and that of the actual work. The former focuses on theory and the latter the work in a specific medium.

Let us now review in detail some recent discussion of Hejduk's work: one consists of essays in the book *Hejduk's Chronotope* and the other consists of selected essays from a variety of journals discussing Hejduk's *Diamond Projects* and *Wall Houses*. While the former are purely theoretical, the latter simply touch on the work itself. A review of discussions addressing Hejduk's interdisciplinary nature of work will be carried on in Chapter 1 one of whose focuses is to trace the themes of painting, architectural drawing and poetry in Hejduk's architectural journey. However, the current review is to understand how the two levels of interpretation and discussion enhance our understanding of Hejduk's work. It will also help us to define the framework of this research as well as the level on which our interpretation will be conducted. A review on the discussions in *Hejduk's Chronotope* will be carried on in section 1.3.2 while a review on two essays discussing the *Diamond Projects* and the *Wall Houses* will be carried on in section 1.3.3.

1.3.2 Discussion on the Ideological Level

The book *Hejduk's Chronotope*, edited by Hays and published in 1996, is the first and only collection of essays that discuss Hejduk's work and thoughts. This book exemplifies the dominant nature of the discussions of Hejduk's work on an ideological level.

Detlef Mertins: *The Shells of Architectural Thought*

In *The Shells of Architectural Thought*, Detlef Mertins claims that Hejduk's architectural projects/objects embody thoughts, asserting that "it is Hejduk's ability to use the medium of architecture for thinking that has the greatest implication for the contemporary practice of architecture. This aspect of Hejduk's work compels us to rethink how architecture can serve as a communicative art in the public domain today." (Hays 1996, 26) In his analysis, Mertins primarily relies on the following methodology: 1) linking what Hejduk says about his projects (thoughts) with detailed observations of the actual projects; and 2) situating Hejduk's work within a historical framework of philosophy.

The first methodology provides a detailed reading of Hejduk's work. The articulation of the details in Hejduk's work functions in the manner of restatements of Hejduk's words. The second methodology facilitiates the understanding of Hejduk's work from a historical point of view. For example, when arguing the existence of form and expression in Hejduk's work, Mertins discusses Claude-Nicolas Ledoux's architecture. He argues that Ledoux's distortions of classicism "help identify three important lines of research that may be taken as early

versions of twentieth-century functionalism, formalism, and expressionism, which Hejduk's work may be understood to have 'absorbed' and 'exorcised.'" (Hays 1996, 32) When discussing schematic versus symbolic elaboration in Hejduk's work, Mertins refers to Peter Behrens' theoretical constructs as "one new-Kantian, the other derived from the scientific study of vision" and then elaborates on these two aspects. When discussing the body-feeling relationship in Hejduk's work, Mertins reviews the historical precursors of the emotionally charged formalism of the Bauhaus within the psychology of architecture and the theory of empathy[8]. Thus, the thoughts embodied in Hejduk's projects are explored at a level of challenging or problematizing existing philosophical thoughts.

A murmur of a medium-specific discussion appeared in Mertins when he contrasted literal versus phenomenal transparency. Mertins points out how the idea of transparency is problematized in Bernstein houses, in which elements of the interior are placed on the outside and obscure the representational device of the façade. Mertins provides a glimpse of the medium-specific way of discussing the architectural concept.

[8] *Hejduk's Chronotope*, p.42. "The concern within empathy theory for the interpenetration of form and content, without recourse to representation, was formative for the expressionist strain of modern abstraction."

Peggy Deamer: *Me, Myself, and I*

Peggy Deamer observes the impossibility of disengaging the work from the man, as Hejduk always inserts himself into the critical discourse by virtue of the dominant presence of the author in the work. In order to examine the roles that Hejduk plays in his work, Deamer uses the analogy of autobiography "to see how the identification of Hejduk's work as autobiography points to structural conditions that shed light on how it functions within the discipline of architecture." (Hays 1996, 66) The methodology Deamer uses is to fit Hejduk's work in the structure of autobiography and to examine his roles in autobiographical terms.

Deamer explores four main conditions of autobiography: "1) the problem of the "I," 2) the moral/ideological implications of this "I," 3) the language of the "I," and 4) the role of the critic/reader." (Hays 1996, 66) Specifically, Deamer finds three I's n Hejduk's writing: the author (Hejduk), the narrator, and the hero (anthropomorphic buildings in the texts). All of these I's are characterized by narcissism and a psychological dimension. They also address ideological concerns to attract European audiences. Meanwhile, "this ideology, which is more moral than political and more mythical than social, ultimately brands him as an American." (Hays 1996, 71) Deamer also points out that Hejduk crosses the boundary between medium and discipline by applying literary formulations to non-literary work when addressing the language of the "I." Deamer concludes by claiming that Hejduk structurally builds the reader into the text so that the critic is ultimately the victim.

R.E. Somol: *One or Several Masters?*

Somol not only examines Hejduk's work through the lens of Dilles Deleuze and Félix Guattari's *Kefka: Toward a Monir Literature*, but also contrasts Hejduk's and Colin Rowe's points of view.

In Dilles Deleuze and Félix Guattari's terms, Hejduk's work exemplifies minor literature. Somol refers to the three characteristics of minor literature in *Kafka*: "1) language is affected with a high coefficient of deterritorialization; 2) everything in [it] is political; and 3) everything takes on a collective value." (Hays 1996, 109) Hejduk's work, on both architectural and urban scales, exemplifies the first character by reaching the impossibility of producing something new or copying something in a historicist or modernistic manner. The second character is reverberated in Hejduk's nomadic troops.

To elicit a cross-section of society, Hejduk employs stock characters that are highly particularized and de-individuated through stylized object-forms (*masks*) that eliminate the organized *faciality* of liberal, individualist politics, as well as through the specific improvization of company at a given performance through which traditional scenarios are enacted (*masque*). (Hays 1996, 109-110) In addition to manifesting the impossibility and the political, Hejduk's work also stresses collective expression, the third characteristic of minor literature.

In order to further elucidate the characters of Hejduk's work, Somol contrasts Rowe with Hejduk, portraying Rowe as a commentator or critic and Hejduk as the heroic poet, and

exemplifying Rowe as the liberal and Hejduk as the medieval. He adds that Rowe sets up a version of high modernism that is in search of the language of architecture, while Hejduk sets up a version of avant-garde and engages in the writing of architecture, "of which it remains uncertain as to whether is multiplies and counts on risk, or contains, contracts, and insures against it." (Hays 1996, 103) Somol argues that Hejduk's use of numbers violates the mathematics and linguistics of formalism whereby numbers become figures and letters become characters. In sum, "the liberal contradictions that came to identify post war modernism (and which were highly articulated by Rowe) are elided or rearranged by Hejduk." (Hays 1996, 110)

Catherine Ingraham: *Errand, Detour, and the Wilderness Urbanism of John Hejduk*

In order to analyze Hejduk's narratives, Ingraham refers to several theories and examples. She refers to Perry Miler's notion of errand in order to elaborate on the journeys in Hejduk's work. She refers to Henri Fabre's experiment of setting up caterpillars in a loop in order to explain the idea of detour in Hejduk's work. She then shifts to Sigmund Freud's *The Interpretation of Dreams* and Jacque Lacan's "gap" in order to understand Hejduk's manipulation of words and images. Ingraham argues that Hejduk "reduces the word to a condensed and cryptic 'poetics' that the image subsequently elaborates and interprets." (Hays 1996, 136)

Stan Allen: *Nothing but Architecture*

Allen addresses Hejduk's work within the tension between the two poles of practice and theory. To Allen, Hejduk refuses theory from "outside of, or apart from, the operational space of its procedures." (Hays 1996, 84) He suggests that Hejduk's work was not a minor practice since Hejduk archived his work continuously and drew his work precisely, as if anticipating how people would regard his work in the future. Although his work is both closed and open in this sense, the involvement of others in his projects as well as the time span will not allow Hejduk's work to become a minor practice.

Allen reviews two projects of Hejduk, the *Cemetery for the Ashes of Thought* and the *Dilemma House*, both of which illustrate Hejduk's collapsing the discursive language into the projects, understood by Allen as evidence of Hejduk's subverting the conventional theory/practice opposition.

Before drawing conclusions (see section 3.4), two essays of special merit published separately will be reviewed.

1.3.3 Discussion on the Actual Work

Surprisingly, discussions on the actual works of Hejduk's are not many in the literature. The existing discussions are even more limited on the *Diamond Projects* and the *Wall Houses*.

Although few extensive explorations have been taken place on these two series, the following two articles may provide us with widely acknowledged perspectives.

Lewis

After the construction of Wall House 2, Diane Lewis referred to the wall element in the Wall House as an "extreme structural image." (Lewis 2001, 64)

> "The exposure of the previously internal private workings of the domicile as cantilevered, externalized, curvaceous organs. Central to the Wall Houses' importance is the great wall "tableau," an element equivalent to a painter's canvas." (Lewis 2001, 64)

As built, the house provides positioned views that are not apparent in Hejduk's drawings. Lewis pointed out the similarity between the wide view through the ribbon windows and the masterful 360-degree landscape shot in Stanley Kubrick's 1976 film *Barry Lyndon*. Lewis deliberately mentions that Hejduk and Stanley Kubrick grew up on the same block in the Bronx, New York City, drawing an interesting link between the two. Furthermore, "the ribbon windows that wrap around the curved pavilions open views of the wall from the interior, and reflected onto the glass is a projection of the landscape." (Lewis 2001, 64) She observed that "the inward projection of the landscape is more chromatic, focused, and painting-like than the view when facing out."

Hays

Michael Hays emphasizes the deep structural development of Hejduk's work, which he regards as "the most certain index to the many semantic, allegorical, and experiential possibilities that it constructs." (Hays 2002) Hays characterizes Hejduk's early work as "developing the classicist-modernist axioms of flatness versus depth and opacity versus transparency." (Hays 2002)[9] More specifically, Hays summarizes Hejduk's discovery in the *Diamond Series* as "the image of the flattening or collapsing of deep space onto the square vertical plane." (Hays 2002) Hays uses Hejduk's key diagram to demonstrate the theme of a deep space collapsing onto a vertical plane. This theme extends in the entire trajectory of Hejduk's career.

At the same time, Hays argues that not only is the subject a viewer, but the architecture also "exerts a defining force back on the subject." (Hays 2002) In this sense, Hejduk's wall is akin to the "image-screen" described by the French psychoanalytic theorist Jacques Lacan. In Lacan's vocabulary, an "image-screen," or a "mask," "both determines what can and cannot be seen and how it is seen, and helps us to manage what is seen by giving us a symbolic system with which to represent objects to ourselves and ourselves to others." Hays argues that Hejduk's Mask of Medusa is his Wall. The wall functions back towards us by providing "a historically generated repertoire of images through which we as social subjects are constructed." This intention was more and more clarified in Hejduk's later works, which reveal heavy narratives and radical figuration. Hays argues that even in the early Wall

[9] The transparency that Hays meant could be the literal transparency in Colin Rowe's vocabulary.

Houses, the wall is not a ground but another figure. "Together these two features of the Wall Houses–the temporal, narrative dimension and the radical figuration–form the crux of Hejduk's various Masques." The *Wall Houses*, according to Hays, form the starting point for Hejduk's challenge of the subject-object distinction in his later works.

1.3.4 The Need for a Medium-Specific Framework

The previous review of the critiques of Hejduk's work confirms the establishment of widely different frameworks of interpretation. Frampton essentially opposes abstraction to a concern with the city, Lewis and perhaps Martin appear to be interested in perceptual, if not aesthetic qualities, and Hays discusses how his architecture contributes to a construction of subjects. These various positions draw our attention to the permeability of the boundaries between architecture and other art forms in Hejduk's work. However, the issue of cross-media thinking is not addressed extensively, the reasons for which are various. One could be that Hejduk is such a profound figure in American architecture that other issues distract researchers from looking at his interdisciplinary thinking mode. Another reason may be that interdisciplinary study could easily fall into the category of aestheticizing Hejduk's deep thoughts. However, one cannot deny the importance of Hejduk's interdisciplinary thinking. His continuously crossing of the boundaries of painting, poetry, architectural drawing and architectural space has been questioned by several scholars that have acknowledged it but not expanded on it. That is, they have addressed what he has done, but not how he has done it. The answer to the *how* lies in the idea of construction. Out of the construction of a work of art in its specific medium emerges meaning, providing a constructive way of

exploring the meaning of artwork. Thus, the lack of extensive research on Hejduk's cross-media thinking is rooted in the lack of an efficient methodology.

Since we intend to examine the system of Hejduk's interdisciplinary thinking, the discussion cannot be purely theoretical. The purpose of a theoretical discussion would be to discuss his work within the context of philosophy. Thus, the discussion on the actual work is replaced by the discussion on the philosophy exemplified in the work. As a result, the medium in which Hejduk's work is discussed shifts from the original medium to that of natural language, so the discussion is not only presented in natural language but also formulated in natural language. Thus, the original medium of the work becomes less relevant. In other words, the construction of Hejduk's work is not discussed or presented as a physical construction but as an ideological construction. In other words, what has been exorcised are structures of ideas but not structures of space. In doing so, the medium-based entity exemplified in Hejduk's work will be left untouched. However, the medium is the means by which we examine Hejduk's interdisciplinary thinking system. The objective of this current study compels us to establish a methodology of our own.

Clearly, the methodology of our current study must be rooted in the specific medium in which Hejduk's work is constructed. Thus, meaning will be discussed and understood within that specific medium. In other words, since architectural concepts and feelings emerge from the constructions of the work within the media, we are, in fact, asking the question of how meaning is constructed in a specific work.

We can legitimately explore meaning in Hejduk's work by exploring the spatial construction of the work in its original medium. However, spatial construction of meaning is not the only construction in a work of art. After 1975, Hejduk's work engaged more and more narratives. Thus, how much does the meaning of Hejduk's work emerge from the spatial construction as opposed to other kinds of construction such as naming? This question is answered by defining the boundaries of this research. We will focus on Hejduk's early architectural projects, the *Diamond Series* and the *Wall House Series*, both of which highlight spatial construction.

1.4 Defining the Current Study

1.4.1 Subject

Throughout his career, Hejduk consistently speculated across the media of architecture, architectural drawing, painting, poetry, and myth in a huge body of work. However, this thesis will be based on a limited and specific range of the work he produced during the first of the two significant moments in his career. According to Michael Hays, these moments were the "discovery" of the Wall House around 1969 and the reinvention of the architectural masque, "which began in 1981 with Berlin Masque, though Cemetery for the Ashes of Thought (1974) already anticipated it." (Hays 2002) Since the latter is an extension of the former, this thesis will cover only the earlier event, leaving open the extension of research on his post-1970's work for the future.

Specifically, this study will focus on four categories of materials: 1) paintings that inspired Hejduk's the *Diamond Series* and the *Wall House Series*; 2) Hejduk's poems about paintings; and 3) Hejduk's architectural drawings of the *Diamond Series* and the *Wall House Series*; and 4) the two sets of architectural projects: the *Diamond Series* and the *Wall House Series*.

In the first category, two sets of paintings will be examined: 1) Piet Mondrian's sixteen *Diamond Compositions* (painted between 1918 and 1944); and 2) George Braque's *Studio Series* (painted between 1949 and 1956) and Jean Auguste Dominique Ingres' *Comtesse d'Haussonville* (painted in 1854). According to Hejduk himself, the first set of paintings directly inspired his design of the *Diamond Series* (designed between 1963 and 1967)[10] while the second set inspired his *Wall House Series* (the primary three designed between 1968 and 1974)[11]. The purpose of this part of the study is to show how spatial statements are formulated as concepts in the medium of painting.

In the second category, Hejduk's twenty-one poems on paintings, published in the book *Such Places as Memory* (1998), will be examined in relation to the paintings to which these poems refer. The poems, written between 1953 and 1996, refer to paintings from the 13th to the 20th centuries, such as those of Giotto di Bondone, Paolo Uccello, Edward Hopper, and René Magritte. Among them, one poem, *To Madame D'Haussonville,* is dedicated to Ingres' painting *Comtesse d'Haussonville*; another poem, *Nature Morte,* is dedicated to Braque's *Studio Series*. These two poems are closely related to Hejduk's *Wall House Series*. The purpose of this

[10] In *Mask of Medusa*, page 48, Hejduk admits that his *Diamond Series* is "a first attempt to invest the formal possibilities" of Mondrian's *Diamond Composition*.
[11] In *Mask of Medusa*, page 76, Hejduk comments on *Comtesse d'Haussonville* and says that "this painting is in my work – in the Wall Houses."

part of the study is to show how concepts and feelings are produced from the way in which paintings are perceived and described in the poems.

In the third category, Hejduk's architectural drawings, especially axonometric drawings will be studied. The objective is to understand how a concept can be formulated in architectural drawings, which will serve to examine in later chapters how a concept formulated in drawings are re-stated in architectural space.

In the fourth category, Hejduk's *Diamond Series* and *Wall House Series* will be examined, based on the study conducted in the previous three parts. The author is interested in not only analyzing these architectural projects as final results but also, more importantly, examining the formulation of these projects in progress. The purpose is to show how the spatial statements formulated in the paintings are translated into Hejduk's architectural language, and how Hejduk's construction of concepts and feelings in the medium of architecture is relevant to his construction of concepts and feelings in the medium of poetry.

In this thesis, space will be the main topic of our discussion. Although the research will analyze other media, such as painting, poetry and architectural drawing, it will focus on how spatial attributes are exemplified. Thus, the discussion will always remain within the physical domain, and the metaphors that we will analyze are metaphorical projections. Therefore, Either concept or feeling will be studied through the work. Specifically, we will look at the construction of the work that embeds concept and feeling rather than discussing concept and feeling themselves.

1.4.2 Methodology and Research Sources

Since we are determined to explore how spatial meaning is constructed in different media, the methods by which we will study the works of art will not only be tightly embedded in their specific media but also focus on the ultimate goal of defining spatial meaning.

In the medium of painting, we will determine the chararteristics of the painting through Hejduk's reading of them. That is, we will use visual analyses to register how Hejduk's reading is possible. Mondrian's *Diamond Compositions* will be studied as a two-dimensional composition, and Braque's *Studio Series* will be examined both as a two-dimensional composition and as a projection of three-dimensional space. Ingres' *Comtesse d'Haussonville* will be viewed as an illusional representation of three-dimensional space.

In Hejduk's poems, we will focus on the idea of space depicted in the medium of natural language for the purpose of identifying how spatial ideas are written in poetic words. Thus, the study in the medium of poetry, in fact, targets the medium of space.

In Hejduk's architectural drawings, we will focus on the drawing elements so that the investigation will be about medium of drawing itself. we will interrogate what aspect used by Hejduk to convey the idea of space. Is it purely visual or is it about the structure of space?

The architectural medium will be addressed from two approaches: 1) architectural plans and 2) the physical space of architecture. The first categories may appear to overlap with the discussion of Hejduk's architectural drawings in such a way that architectural plans are

usually drawn in architectural drawings. However, the emphases of these two categories differ. The former emphasizes architectural elements while the latter emphasizes drawing elements. In other words, the study of architectural plans addresses the relationships among architectural elements in the form of plan, whereas the study of architectural drawings addresses the drawings of elements such as two-dimensional compositions and the projections of three-dimensional objects onto a two-dimensional picture plane.

This research will not only include the study of materials within the media of architecture, architectural drawing, painting, and poetry, but also compare them across the media and study the intersections of all the media. To capture structural and sensual attributes, this study will use observation and analytical diagrams. Meanwhile, computer generated models of Hejduk's architecture will be built so that virtual space can be navigated in order to study the key moments of sensing the space.

The material for research came from two sets of Hejduk's architectural projects, but only one house, the Bye House (also known as Wall House 2), was actually built, in Groningen, the Netherlands. The rest are un-built projects that can only be studied through sketches or fine-line drawings and other kinds of media such as models and collages from the archive center. In addition, since Hejduk's drawings always embed different degrees of ambiguity, analysis will entail in-depth study of his original drawings rather than selected ones in books.

The primary sources of this research were a one-week visit to the Canadian Center for Architecture in Montréal, Canada, in May 2003; a visit to the Wall House 2 in Groningen, Netherlands, in July 2003; and a one-week visit to the Cooper Union and the Cooper Union

Library in January 2004. Another primary source of information came from interviews and emails with individuals who worked with Hejduk, including David Shapiro (Hejduk's friend and colleague for twenty years), Robert Shubert (Associate Curator, Prints and Drawings Collection, Centre Canadien d'Architecture), Kim Shkapich (editor of the majority of Hejduk's publications), Reneta Hejduk (Hejduk's daughter who teaches architecture at Arizona State University), and Steven Hillyer (Director, the architecture archive center at the Cooper Union).

1.4.3 Structure

To explain Hejduk's interdisciplinary thinking: this thesis will present these separate analyses of the following media relationships: painting and architecture, architectural drawing and architecture, and poetry and architecture. Although these analyses can be viewed individually, they also form an interesting structure: the medium of painting functions as a departure point of architectural design while the media of architectural drawing and poetry function as working media through which architectural concepts are formulated.

Chapter 2 will examine two pairs of painting-architecture relationships: 1) Hejduk's *Diamond Series* in relation to Mondrian's *Diamond Compositions* (1918-1944); and 2) Hejduk's *Wall House Series* in relation to George Braque's *Studio Series* (1949 and 1956) and Jean Auguste Dominique Ingres' *Comtesse d'Haussonville* (1854) This chapter will discuss how visual properties in painting can be restated in the medium of architecture.

The Diamond Museum and Wall House 2 will be further analyzed through dialogues across media. Chapter 4 will examine Hejduk's axonometric drawings and Chapter 6 his poems. Following each of these chapters is a discussion of the medium of architectural space. Therefore, Chapters 4 and 5 form a pair, and Chaptersr 6 and 7 form a pair. Furthermore, these two pairs not only include cross studies of the relationships between architecture and works in other media but also address the two ideas of flatness and otherness, which appear and re-appear in Hejduk's work. Specifically, Chapters 4 and 5 deal with flatness while Chapters 6 and 7 deal with otherness.

A nesting structure among the chapters is constructed on two levels. First, Chapter 3 examines the *Diamond Series*, which will be revisited in Chapters 4 and 5, and the *Wall House Series*, which will be revisited in Chapters 6 and 7. The medium of painting in Chapter 3 serves as an explanation of the original work. The media of architectural drawing and poetry in Chapters 4 and 6, respectively, serve as the formulation of ideas/architectural concepts. Second, the tension between the construction of the *Diamond Series* and the *Wall House Series* examined in Chapter 2 will be extended to two later parts, Chapters 4 and 5, and Chapters 6 and 7. This tension may serve to explain Hejduk's agony towards formalism.

1.4.4 Implications

This thesis intends to advance the understanding of Hejduk's interdisciplinary thinking mode to an analytical level and to contribute to the theory of interdisciplinary study in general. By analyzing the ideas that Hejduk easily articulated in only certain media but not others, this

thesis will explore how intentions are formulated in specific media, such as painting, poetry, architectural drawing, and architectural space. By exploring how meaning is medium-specific, we will address the question of how Hejduk's interdisciplinary thinking mode facilitates understanding of architectural conceptualization. At the same time, as an experiment in methodology itself, the proposed research will also address questions on how to combine formal and analytical rigor within studies across the media of architecture, architectural drawing, painting, and poetry. The methodological framework developed in this thesis can be used and augmented in future studies.

CHAPTER 2
TIME LINE

Abstract

This chapter will present a chronology of Hejduk's exploration into the media of painting, poetry, architectural drawing and architecture. First, it will trace the periods of Hejduk's awareness of paintings as well as theoretical arguments that later evolved into particular characteristics prominent in architectural drawings and architecture. Then it will focus on how certain writers and poets influenced Hejduk's poetic aesthetics, which might have fostered the emotional intentions in Hejduk's architecture. In terms of architectural drawing, this chapter will examine the peculiar qualities of Hejduk's work and seek to understand how architectural concepts are foregrounded through these drawing qualities. In the medium of architecture, this chapter will interrogate, both in terms of concept and vocabulary, the gradual emergence of the *Diamond Series* and the *Wall House Series*, the relationship between the two, and the recurrence of the Wall House theme in Hejduk's later works.

Hejduk always worked with and thought in multiple media, such as the novels, poems, paintings, sculpture, and film. However, the media of painting, poetry and architectural drawing were the three most consistently interwoven with his architectural exploration. His awareness of painting, especially Cubist painting, occurred at the beginning of his career when he was an architect and academician. Throughout his career, the cubist theme continued to flourish, and his poetry, which developed concurrently with his architecture, was often inspired by paintings. In *Such Places as Memory* (1998), Hejduk devoted twenty-one poems to paintings.

The synthesis of poetry, painting and architecture is interesting in that each one on its own constructs space in a different way. Architecture constructs physical space while both poetry and painting construct virtual space. Poetry distances the percepts of space based on the visual because it is not a visual medium. Painting, however, completely depends on the percepts of space based on the visual since it is the purest visual medium. Architecture is more than visual; it is a reality that involves all of our senses. These three media exemplify concepts of space and stimulate or express feelings about it.

A medium is non-visual or visual, discursive or non-discursive (representative). Thus, media convey meaning in completely different ways. As an illustration, the medium of language differs from other symbolic forms due to its discursiveness, according to Langer. In her view, discursiveness resides in the fact that verbal symbolism "requires a form which requires us to string out our ideas." (Langer 1979, 81) However, visual forms, such as painting, are not discursive, as "they do not present their constituents successively, but simultaneously, so their relations determining a visual structure are grasped in one at of

vision." (Langer, 1979, 93) The medium of poetry lies somewhere between discursiveness and non-discursiveness in that the arrangement of words or segments of words on paper is visual and also contributes to poetic meaning.

2.1 Painting

Hejduk's education in architecture began at Cooper Union (1947), when he took a two-dimensional design studio taught by Henrietta Schutz. Hejduk, who always had a wonderful memory of both Schutz and her class, (Shapiro 1991) described this particular first year training of drawing and painting as follows.

> "Through a rigorous discipline it trained the eye (visual sensibility) and the hand (tactile sensibility). We learned how to handle a paint brush, and began the exorcising of one's innate feelings towards color, form and space… We were training for a very long time working with the black figure on the white ground, adding and subtracting… We learned about he energies of form and space, about the inner workings of tensions and compressions, and about relationships… We learned the delight of controlling flat surfaces, and also the sensuosity of curves. We learned about the tactile, the taste of paint and the feel of paper… Consequently the training of an architect began. Story telling came later."
>
> (Hejduk 1985, 27)

This excerpt does not simply state a general impression of the class. When we look at Hejduk's architectural later work, we realize that the thread of his specific consciousness of space actually began during his very first training at Cooper Union, if not earlier. To describe his work, this thesis will refer to the following ideas: visual sensibility, tactile sensibility, compression, and flat surface. As Hejduk admitted in his interview with Don Wall, "the *probings* of the early projects all come from the two-dimensional design class. They are all interlocking, centralized conditions, moving out towards the edges." (Hejduk 1985, 35)

Hejduk's awareness of two-dimensional composition has two possible implications. On the one hand, he may read two-dimensional compositions as concepts of space and register them in the three-dimensional language of space. On the other hand, he may treat architectural plans as if they were paintings. That is, he may explore the compositions of plans in their own right instead of considering them as generators of architectural space proper. We will look into the details of this matter as the discussion proceeds.

2.1.1 Painters and Paintings

Hejduk referred to a number of artists, the most prominent of whom were Mondrian, Braque, Gris, Ingres, Hopper, Sassetta, and the Italian primitives (Leonardo Da Vinci, Botticelli). (Hejduk 1985, 36) Earlier in his career, Hejduk persisted in discussing the spatial ideas exemplified in the paintings of Juan Gris and Piet Mondrian. Later on, he repeatedly referred to the description of a bird's death in George Braque's paintings as well as the sensuality of Sandro Botticelli's paintings. His strong interest in various artists is also

revealed in his twenty-one published poems on paintings in *Such Places as Memory*. Each poem is dedicated to a specific painting or a set of paintings of one artist. As it follows, a list of Hejduk's poems as well as the artists to whom they refer clearly indicate his wide range of interest in paintings.

1. *Annunciation*, Leonardo da Vinci
2. *Saint Anne Content*, Leonardo da Vinci
3. *A Dutch Interior*, Johannes Vermeer
4. Duet, Dutch painting
5. *Without Interior*, Jean-Auguste-Dominique Ingres
6. *To Madame D'Haussonville*, Jean-Auguste-Dominique Ingres
7. *On a Bridge*, René Magritte
8. *Oslo Room*, Edvard Munch
9. *The Metronome*, Henri Matisse
10. *France is Far*, Edward Hopper
11. *Nature Morte*, George Braque
12. *A Monster Slain*, Paolo Uccello
13. *A Birth*, Sandro Botticelli
14. *Silk of Springs*, Sandro Botticelli
15. *An Umbrian Passage*, Giotto (Giotto di Bondone)
16. *Olive Trees in Ochre*, Duccio (Duccio di Buoninsegna)
17. *Tuscan Wheat*, Paolo Uccello
18. *Saint Ursula's Dream*, Titian (Tiziano Vecellio) or Giogione (Giorgio Barbarella)
19. *Creation of the Animals Before Braque*, Tintoretto (Jacopo Robusti)

20. *Berlin Winter Mask*, Breughel (Pieter Brueghel the Younger)
21. *Eros*, Bronzino (Agnolo Bronzino)

Of the paintings above, four have a much stronger relationship with Hejduk's early work than others. They are the early Cubist paintings of Juan Gris, the *Diamond Composition* of Piet Mondrian, *Comtesse D'Haussonville* of Ingres, and the *Studios* of George Braque. The latter three provided the inspiration for Hejduk's *Diamond Series* and the *Wall House Series* designs (Hejduk 1985, 48, 76).

The works of Juan Gris and Piet Mondrian have fundamentally influenced Hejduk's perspective of space. The publication of Colin Rowe and Robert Slutzky's two *Transparency* articles in 1963 and 1971 led to Hejduk's response in the article *Out of Time and Into Space* in 1975. In this article, Hejduk refers to two of Gris' paintings, *Guitar, Glasses and Bottle* (1914) and *Violin and Newspaper* (1917) and Mondrian's *Victory Boodie-Woogie* (1942-1944). Using these three paintings, he illustrated what he meant by the Cubist means of registering space. Later in this chapter, we will engage in a debate about transparency in Rowe and Slutzky's two *Transparency* articles as well as Hejduk's response.

As it is noted in Introduction, Hejduk referred to Mondrian's *Diamond Composition*, stating that it was the main reason for the design of *Diamond Series* between 1963 and 1967. Besides the compositional aspect, Hejduk reads opacity in pre-abstract Mondrian. He mentioned the following in a paragraph in *Mask of Medusa.*

> "It was not the color of the tulips but the density of the sand and earth where the bulbs were planted which reminded me of Mondrian. It was the atmosphere of opacity. The place, the land, the earth was dense opacification. The colored flowers were not the issue, it was the infinite penetration and the compaction of trapped light crystals in the earth which illuminated the air into a grey solidity… Dutch grey." (Hejduk 1985, 54)

In a later interview with David Shapiro, Hejduk also emphasized the opacity that he detected in Mondrian's paintings.

> S: How does Mondrian influence you?
> H: Well, I think he's opaque. I love his opacity. It's thickening. He deals in thickenings. They all say he's two-dimensional. It looks two-dimensional but it's not two-dimensional. His are very thick, opaque paintings. Also his flowers, Mondrian is one of the greatest representators of flowers. He painted cows. He's not a purist. (Shapiro 1991)

Hejduk's interest in Mondrian resulted in his collaboration with Robert Slutzky in 1967, about the time when the *Diamond Series* was completed. At that time, Hejduk and Slutzky completed an installation design for an exhibition entitled *The Diamond in Painting and Architecture* at the Architectural League of New York.

It is noted that Hejduk's readings of these painters and paintings are strongly intentional, with the concealed or even unintended qualities of paintings emphasized in Hejduk's

observations. These qualities of the paintings are read not because they are the most obvious but because they are the most sympathetic to his sensibilities. For example, Hejduk's observation of *Comtesse D'Haussonville* was the result of a unique viewpoint and became the blueprint for the key ideas in his *Wall House Series*. He also wrote a poem *To Madame D'Haussonville* that highlights the strangeness embedded in the painting, which will be discussed in detail in Chapter 6.

During the same time Hejduk became aware of the strangeness in *Madame D'Haussonville*, Braque's birds flew into his vision. Hejduk kept referring to the moment when a bird crashes into wallpaper, which was interpreted in his *Wall Houses*. Later, in *Adjusting Foundations*, Hejduk dedicated a long paragraph to this moment of "crossing." One might say that Hejduk's readings of Braque changed over time. Initiallly, Hejduk focused more on the spatial issue of crossing while later in *Adjusting Foundations*, Hejduk focused more on the idea of life and death. As with *Comtesse D'Haussonville*, he was inspired to write a poem on Braque's *Studios*.

Another artist that clearly influenced Hejduk was Edward Hopper. The overtones of Hopper's works were evident in Hejduk's designs, and more so in his later works. When he designed the New Town for the New Orthodox in the 1970s, Hejduk looked to Hopper's work, designing a hotel resembling an isolated house with awnings in Hopper's painting. (Hejduk 1985, 85) One of Hejduk's poems, *France is Far*, first published in 1980 in *The Silent Witnesses and Other Poems,* is dedicated to Hopper. However, the mood of isolation found in Hopper's work, was already evident in Hejduk's designs as early as 1971 and 1972, when he designed the Element House. In this house, he embedded ambiguity by completely isolating

its elements as opposed to interlocking its elements. From the time that he designed Element House, Hejduk entered "the architecture of Pessimism." (Hejduk 1985, 63)

Throughout his career, Hejduk continued to regard different paintings an inexhaustible source of ideas and inspiration for his architecture. When Hejduk moved back to the Cooper Union, he asked students to design architecture based on their understanding of the paintings of Juan Gris and Jean Auguste Dominique Ingres. Besides the key issue of spatial arrangement, the work of Hejduk's students provides several other dimensions to the question of how painting serves the intentions of architectural design. All the analyses and works are the results of experiments in their specific media. For example, the object arrangement design on *La Grande Odalisque* illustrates an experiment in texture. The series of collages in *Comtesse D'Haussonville* explore different representations of the idea of reflection. The cut-outs of the analyses of Juan Gris' painting question not only the spatial forces among visual elements but also the effects of physical depth. A series of drawing analyses of Paulo Uccello's three paintings of *The Battle of San Romano* discusses abstraction of shapes and another analysis of the same paintings inquires about the spatial forces in the projection system of perspective. At last, a project more closely related to architectural design was based on the reading of Fernand Léger's *The Disks*.[1] The works of all of these students incorporate the idea of partial re-statement across media, which resonates with what Hejduk was exploring in his paintings, poetry, architectural drawing and architecture.

[1] These students' projects are published in *Education of an Architect* (1988).

2.1.2 On Cubist Paintings

Although Hejduk was interested in various paintings, Cubist paintings were both a serious starting point in Hejduk's interdisciplinary thinking and a model for his continuous theme of flatness in his designs even in later years. In 1954, after finishing his architectural education and a one-year trip to Italy, Hejduk joined the School of Architecture at the University of Texas in Austin and became one of the *Texas Rangers*. Hejduk's stay at the University of Texas from the fall of 1954 to the spring of 1956 overlapped with Collin Rowe's and Robert Slutzky's stay. Rowe had already been an accomplished architectural critic while Slutzky was a painter who "remained permanently fascinated with the relationship between architecture and painting." (Caragonne c1995, 11-12) Hejduk and his peers followed the Bauhaus tradition of reading paintings and architecture side by side. This could have been the direct result of the close collaboration between architecture and painting instructors. Because an important concern in synthesizing these two media had been the transition from the two-dimensional paintings to three-dimensional architecture, Cubist paintings became the focus of attention, as they represented a paradigm of the properties of modern architecture.

Transparency: Literal and Phenomenal

The article *Transparency*: *Literal and Phenomenal* by Rowe and Slutzky was written in 1955-1956 and first published in 1963. This article perceives modern architecture through the lens of Cubist art. Rowe and Slutzky distinguish transparency as a material condition from transparency as a quality of organization. The former is usually found in "a deep, naturalistic

space" while the latter is found "when a painter seeks the articulated presentation of frontally aligned objects in a shallow, abstract space" (Rowe c1976, 166). Rowe and Slutzky refer to the former as a "real or literal transparency" and the latter as a "phenomenal or seeming transparency."

Three pairs of Cubist paintings elucidate the double nature of transparency: Picasso's *The Clarinet Player* (1911) compared with Braque's *The Portuguese* (1911), Delaunay's *Simultaneous Windows* (1911) compared with Gris' *Still Life* (1912), and Moholy's *La Sarraz* (1930) compared with Léger's *Three Faces* (1926). The distinction between Picasso and Braque is based on the relationship between the figure and the grid. In the case of Picasso, since the figure is assertive, the grid becomes subsumed. Thus, the viewer tends to perceive space through the figure. In the case of Braque, the figure and the grid are independent, so the viewer receives the shallow space first and gradually perceives the figure with depth and then substance. Picasso demonstrates literal transparency while Braque demonstrates phenomenal transparency.

The distinction between Delaunay and Gris is made on the relationship between the articulation of material condition and the articulation of grid. Both artists paint glass objects with presumable transparency. However, Delaunay elaborates the material in reflections while using a grid as a way to geometricize the naturalistic figures but without reference to the ambiguities of the figures. Gris suppresses literal transparency as a material condition in favor of a transparency of gridding. The grid in his painting functions as a structure that facilitates the explicit definition of a rear plane and engenders the ambiguities of the figures. Thus, while Delaunay demonstrates literal transparency, Gris demonstrates phenomenal

transparency. The distinction between Moholy-Nagy and Léger can be noted in the figure-space tension. Moholy separates figure and background, so only one reading of the space exists. However, Léger interweaves the figures with the spatial matrix, so the flat planes as well as the implications of volume and grid provide inexhaustible visual experiences.

Based on the readings of Cubist paintings, Le Corbusier is compared to Gropius. The key distinguishment that Rowe and Slutzky make is if the transparency is a result of material condition that leaves no ambiguity of reading or if it is a result of spatial organization that has fluctuating character. A comparison of Corbusier's villa at Garches with Gropius' workshop wing at the Bauhaus reveals that the former emphasizes the planar quality of glass instead of the translucent quality, as exemplified in the latter. Furthermore, Corbusier constructs interpenetrating slices of space and surfaces in his villa so that a conceptual reading of the organization of the layers is possible through perceptual discovery. The parallel organizations of surfaces, however, alienate Le Corbusier's architecture from any three-dimensional existence. In addition, the equal dimensionality of interior elements indicates the flattened space (as change of sizes indicates perspective of space). Although flatness is embedded in the parallel surfaces, deep space constantly exists alongside these flat surfaces, generating both tension and ambiguity. In Gropius's building, transparency is literal because not only does it heavily depend on the material condition of transparency, but more importantly, it is also lacks any apparent spatial stratification of parallelism. Thus, more than one direction is suggested, which denies frontality and indicates a deep and naturalistic space rather than a flat space.

This argument is further elaborated in a comparison of Gropius' Bauhaus building and Corbusier's League of Nations project. These two buildings are distinguished by their systems of stratification. Corbusier's building provides several specific locations for the observer while Gropius' building does not.

What is the fundamental question in Rowe and Slutzky's article? Is it "are painting and architecture analogous"? Although they may seem to be, they are not. After all, analogies are links established across realms, so the focus is on exemplified qualities. However, in the *Transparency* article, the focus is on construction, or how things are put together in architecture in order to exemplify the two kinds of transparency in painting. Once the construction in the medium of architecture is foregrounded, it is no longer a question of pure linkage, nor is it a question of applying a concept from painting to architecture. Instead, Rowe and Slutzky construct the concept of transparency based on painting in order to introduce critical distinctions in architecture between a material quality and a spatial quality. The question then becomes one of open-ended construction across symbolic forms. Therefore, Rowe and Slutzky have taken a sophisticated position against the equation of transparency and glass rather than one that forces the issue of naïve translation from painting and architecture. The fundamental question asked is "how is conceptual transparency constructed in architecture, given a distinction between the two kinds of transparency originating in painting?"

Transparency: Literal and Phenomenal Part 2

Rowe and Slutzky wrote a subsequent companion article, *Transparency: Literal and Phenomenal Part 2*, published in 1971. Unlike the first *Transparency* article, in which they compared works as close chronologically to the period of the paintings, the authors view architecture within a large time frame. They discuss the following paintings as examples of phenomenal transparency: the Algerian skyscraper, the Denver building, Caprarola, the nave of St. Denis, the Cad'Oro, the Palazzo Mocenigo, San Lorenzo and Victory Boogie Woogie. Their observations call into question the assumption that phenomenal transparency is a post-Cubist notion.

In the article, the façades of example buildings are compared and linked in terms of multiple readings on the perceptual level. The multiple readings are the results of two major formal organizations of these façades: (1) use of the grid and (2) figural ambiguity. In many cases, the former leads to the latter. A grid is formed in such a way that grouping within the grid organization provides different readings of figures, illustrated in the authors' discussion on the façades. Meanwhile, the figures are formed in such a way that the background shows positive figures. Rowe and Slutzky further discussed the figure-ground relationship through the lens of Gestalt psychology.

The comparison of the two transparency articles bring up two important points. First, grid can be read in different ways in relation to space. In the case of the first transparency article, the grid functions as a matrix that both locks figures in local positions and suggests references for the shallow depth. The flat space is compressed onto the grid. In the case of

the second transparency article, the grid provides multiple grouping possibilities so that more than one reading of the figures is possible. Second, abstract space is formulated on different levels. In the case of the first transparency article, the shallow space is formulated on the matrix. In the case of the second transparency article, the matrix provides layers and layers of readings with no depth with respect to each other. In both cases, the grid is a reference. However, the first case consists of a process of compressing the naturalistic space while the second case may not have a pre-existing naturalistic space.

Out of Time Into Space: Hejduk's Answer to *Transparency*

Following the two "*Transparency*" articles, Hejduk published a precise analysis of specific paintings and architecture in *Out of Time Into Space* in 1975. In his article, Hejduk reads the idea of cubist space in Le Corbusier's Visual Arts Center at Harvard. This building was built thirty years later than Villa Garches, which Rowe and Slutzky claimed embodied Le Corbusier's Cubist intentions.

Hejduk seeks analogies between Le Corbusier's architecture and the two Cubist paintings *Guitar, Glass and Bottle* and *Violin and Newspaper* by Juan Gris by comparing them in terms of formal structure. In his comparison, Hejduk addresses the following three aspects: the directionality of fields, the cutting through the center, and the multiple readings of the grids. With regard to the first, Gris' paintings embed a clear vertical direction due to the overall proportion of the canvas and the organization of the figures. Le Corbusier's building not only uses unequal bays of the structure but also introduces a major trans-pass through the

building, which defines the dominant direction. Second, the compositional cutting through the center of the canvas in the paintings is as clear as the ramp's cutting through Visual Arts Center in the middle. Third, multiple readings of the grid in *Guitar, Glass and Bottle* are suggested while similar readings in the column system in the Visual Arts Center are proposed by aligning different groups of columns (Figure 2.1) (Hejduk 1985) as follows:

> "If the observer takes the same 360 degree course about the columns, he will enter the realm of dynamic and static kaleidoscopic relationships. A 90 degree view parallel to the columns proposes an ordered, static system of space… The observer can now begin the trek of the arc with the next stop at a 60 degree point, then a 45 degree, and finally back to 90 degrees."
>
> (Hejduk 1985, 73)

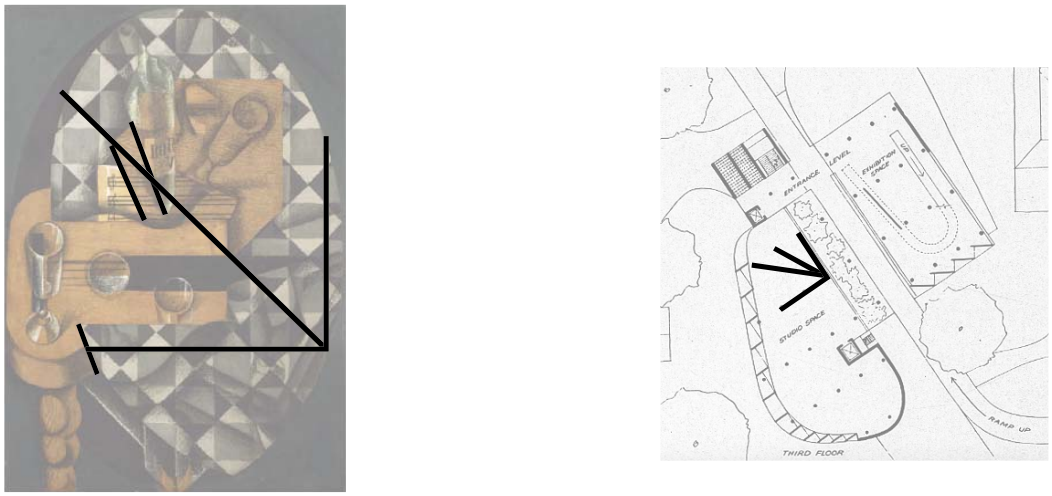


Figure 2. 1 Hejduk's Argument of 90-60-45-90 degree Rotation of Grids

However, one realizes that not only can the claim of 45 and 60 degrees not co-exist, but they are also not the accurate angles in the Visual Arts Center (Figure 2.2) (Hejduk 1985). Hejduk may only be making an approximation in order to show a link with Gris' paintings.

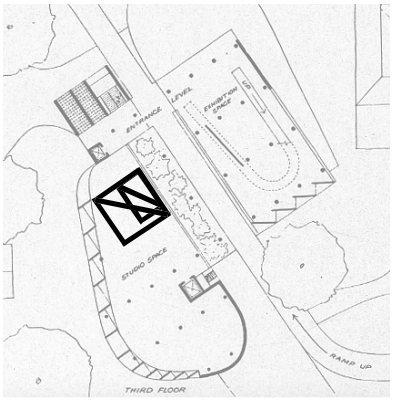


Figure 2. 2 The Accurate 60-45 degree in Corbusier's Visual Arts Center

In the latter part of the article, Hejduk proposes a mobile viewpoint in space as opposed to the single viewpoint suggested in the two transparency articles. Rowe and Slutzky refer to phenomenal transparency that which can be perceived from one point of view. That is, it is a transparency created not by "accumulating images" (the equivalent of superimposing frames from a film tour of a building) but by interpreting the visible in terms of a formal logic that suggests multiple readings. Hejduk asks that we perceive space as a series of two-dimensional images. However, such an approach is not naturalistic. In Hejduk's words, "By moving around, the impression of a two-dimensional aspect is directly followed by that of another two-dimensional aspect. The expression of the structure, form and color of the planes can have a continuous mutual relationship which produces a true image of the

whole." (Hejduk 1985, 74) What Hejduk suggests as "the true image" is neither three-dimensional assemblies nor a simple overlay of our memory of the images, but spatial abstractions. He points out in the article that since a mobile viewpoint in early Cubism intends to express volume, it remains naturalistic. He states that "Abstract Art attempts to destroy the corporeal expression of volume, to be a reflection of the universal aspect of reality." (Hejduk 1985, 74) Since a reconstruction of perceived images is carried on in the viewer's mind, one shifts entirely from images to spatial abstractions. It is on this level of abstraction that Hejduk links abstract painting to architecture.

It is worth stressing at this point how the mobile viewpoint is used by Hejduk as a way of spatial abstraction. Thus, one of the main methods this thesis uses to interrogate architectural space is to construct space animations. The purpose will not be naturalistic by providing illusionary visual descriptions of space, but instead by using filmic language to make statements about the space. The abstraction of naturalistic space is created in the relationships among images that are not necessarily normal views of the space. The relationships are not necessarily in real time sequence. Thus, the computer generated movie itself is a re-construction of the space detached from naturalistic representation and pushed towards abstraction.

2.2 Poetry

S: You are an architect who has written poetry. How has poetry been used in your work?

> H: That's hard. I don't make any separations. A poem is a poem, a building is a building, architecture is architecture, music is… it's all structure. Essential. I use it as language. Architects are originally responsible today to have their language run parallel with their structure. You know what I'm getting at? The new edge in architecture. I cannot do a building without building a new repertoire of characters of stories of language and it's all parallel. It's not just building per se. It's building worlds. It's building worlds.
> (Shapiro 1991)

The above conversation between David Shapiro and Hejduk reveals that literature was a medium through which Hejduk envisaged architecture. It was when Hejduk took his literature class at the Cooper Union as a freshman that he started writing poetry, and he continued writing poetry until he died. His literature was strongly influenced by two people: his wife, Gloria F. Hejduk, and David Shapiro, a friend and colleague for twenty years.

Gloria Hejduk influenced John Hejduk's aesthetics of literature so much that she was called the "silent teacher" of Hejduk's students. Preferring female tragedy in literature, she introduced Hejduk to Thomas Hardy, Gustave Flaubert, Nathaniel Hawthorne, and Thomas Mann. In an interview with David Shapiro, Hejduk believed that these authors "all had an incredible love for woman" and that their understanding of women had affected his work. (Shapiro 1991) That is a very true comment. Hardy's *Tess of the D'Ubervilles* (1891), Flaubert's novel *Madame Bovary* (1857), Hawthorne's well-known work *The Scarlet Letter* (1850), Hawthorne's works, *The House of Seven Gables* (1851), as well as Mann's novel *The Black Swan* (1953), all of which are about tragedy of woman. The sensitivity to the theme of women may

contribute to recurring references to the female body in Hejduk's poems, which will be examined in detail in Chapter 6.

2.2.1 An Architect and a Poet

As both an architect and a poet, Hejduk also worked closely with the poet David Shapiro. The way in which Hejduk and Shapiro met and became close was the result of the friendly teasing of each other regarding their respective work. As revealed in the following short conversation, the architect wanted the poet to read his poetry while the poet wanted the architect to see his architecture.

> Hejduk: "I would like you to read my poetry."
>
> Shapiro: "I would like you to see my architecture."
>
> Hejduk: "But I would *really* like you to read my poetry."
>
> Shapiro: "I would *really* like you to see my architecture."
>
> (From an interview with Dr. David Shapiro on January 12, 2004)

This teasing evolved into a twenty-year collaboration, beginning when Hejduk invited Shapiro to teach poetry at the Cooper Union. The course taught students not only how to write poetry but more importantly how to understand poetry as an art in which the idea of construction was intensely involved. The content of the course varied from year to year, one of which is based on the reading of three cities – Paris, Moscow and New York – and three related poets. The project entailed building a book in which students would create models in

the form of a poem. They would write a text, but had to combine the text and the images to make a book. Some students made books of metal and other books of fruit.[2] During the course of the project, Hejduk was sometimes invited to read his poetry to the class.

Hejduk and Shapiro collaborated on several projects. A project that directly linked Shapiro's poetry and Hejduk's architecture was the construction of the "House of Suicide" and the "House of the Mother of Suicide." In 1968, a young poet, Jan Palach, set himself on fire in Prague to protest the Russian invasion of Czechoslovakia. Shapiro dedicated the poem *The Funeral of Jan Palach* to commemorate his death. The poem inspired Hejduk to design the "House of Suicide" and the "House of the Mother of Suicide," where Shapiro's poem "is part of the structure." (Shapiro 1991) The two structures were first installed in the gardens at the Prague Castle. In 1990, models of the two designs were built by students, directed by Jim Williamson, at Georgia Tech in the atrium of the new architecture building. In fall 2002, they were installed in the front garden of the Whitney Museum on Madison Avenue, New York, as part of the Exhibition of *The Last Works of John Hejduk*.

Another project that Hejduk and Shapiro collaborated along with several other artists on was *Riga*. Riga is the name of a place that is located along the coast of the Baltic Sea in Russia. Since Riga is near a Holocaust site, it has strong significance. The Riga Project is composed of two structures 27 feet high and approximately 9 by 9 square feet in footprint, placed in opposite corners of the Great Hall of the University of the Arts in Philadelphia. The two monster-like structures with "mouths" and satellite dishes complement each other in form. More interestingly, they are accompanied by a black box that contains a video of David

[2] From an interview with Dr. David Shapiro on January 14, 2004.

Shapiro reading his poetry, such as *The Blank Wall*, *House (Blown Apart)* and *The Cup in Architecture*. On the night of the opening, Connie Beckley, fine artist, composer, and performer, presented a music/dance piece in the Great Hall around Riga (Figure 2.3) (Hejduk 1989).

Figure 2. 3 The Riga Project

2.2.2 Hejduk's Poetry

Hejduk's poetry has appeared in three publications: *The Silent Witnesses and Other Poems,* a limited edition portfolio published in 1980, included forty of his poems and later appeared in the *Mask of Medusa* in *Frame 6*; *Such Places as Memory*, published in 1998, consisted of eighty-four pieces written between 1953 and 1996; and *Lines: No Fire Could Burn*, published in 1999, included seventy-three poems.

Two themes resonate in Hejduk's collections of poetry: the thoughts on artwork and places, and the thoughts of religious scenes. In *The Silent Witnesses and Other Poems*, Hejduk, who writes about paintings and places, dedicates a few poems to photographs, which are of buildings. In *Such Places as Memory*, which extends the theme of *The Silent Witnesses and Other Poems,* Hejduk dedicates his poems to places, sculptures, prints, and film stills. Hejduk's poetry and his consciousness of painting converge when he writes poetry about paintings.

In *Lines: No Fire Could Burn*, Hejduk writes religious poems in which angels and Jesus appear in crude medieval color. To some extent, the poetry in this book reflects Hejduk's physical torture from the disease that finally killed him by depicting the physical torture of Christ. "In his last poems, he comes to the point where his physical fragility comes in and makes the poems amazingly strong paradoxically."[3] Furthermore, some poems echo the world of painting and sculpture that overlap with the theme of *Such Places as Memory*. For example, *The Green Room* brings Braque and Jesus together.

…

they were centuries apart

Braque talked about

his paintings

Jesus Listened

for he then knew

what was to happen

before he left

he arranged a bowl of fruit

[3] From an interview with Dr. David Shapiro on January 14, 2004.

into a still life

and painted a wood pear gold

a large purple bird

flew into the dark green room

then became enmeshed

in the arabesque wallpaper

Braqeu fell asleep in his chair

within his silence

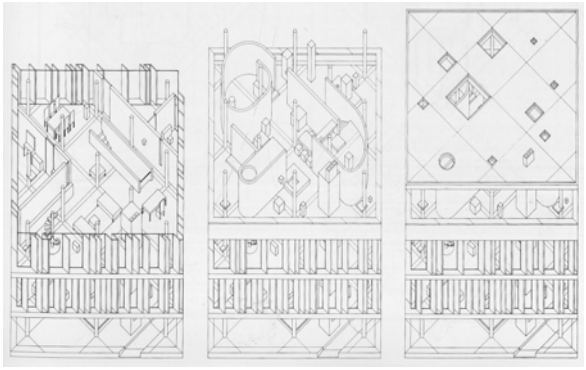
he witnessed

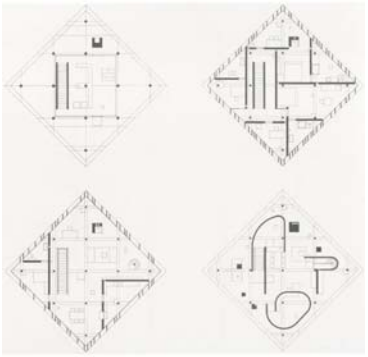
the crucifixion of Christ

(Hejduk 1999, 63)

2.3 Architecture

In 1963, Hejduk began The *Diamond Series*, which led to three projects: Diamond House A, Diamond House B, and Diamond Museum C (Figure 2.4) (Hejduk 1985). The *Diamond Series* was followed by the *Wall House Series*, started in 1968, which led to Wall House 1, 2, and 3 (Figure 2.5) (Hejduk 1985). Projects before the *Diamond Series* will be analyzed as lenses through which the concepts in the Diamonds and the Wall Houses were gradually formulated. Projects in the same period as the *Diamond Series* and the *Wall House Series* will be examined according to how they register as extensions or complements of the concepts in the Diamonds and the Wall Houses. Selected projects after the Wall House period will be examined according to how the language of the Wall Houses facilitates Hejduk's narratives.





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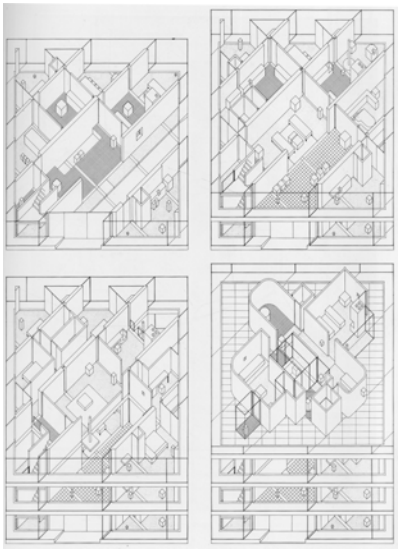
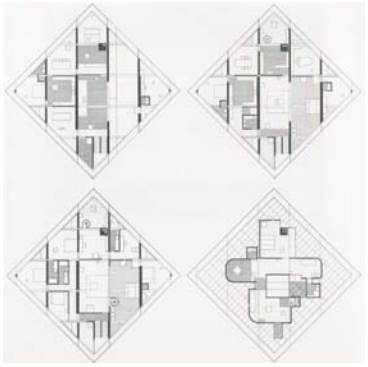
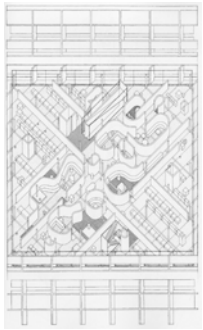
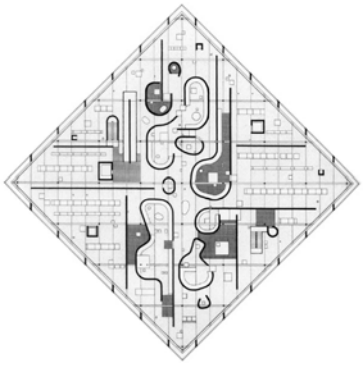




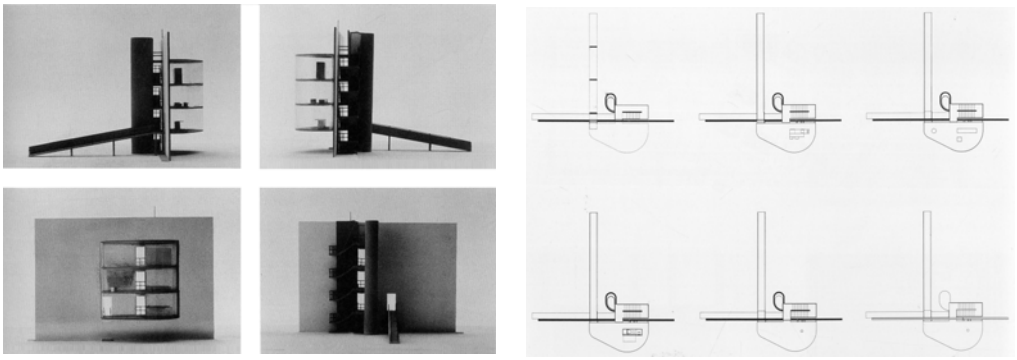
House B



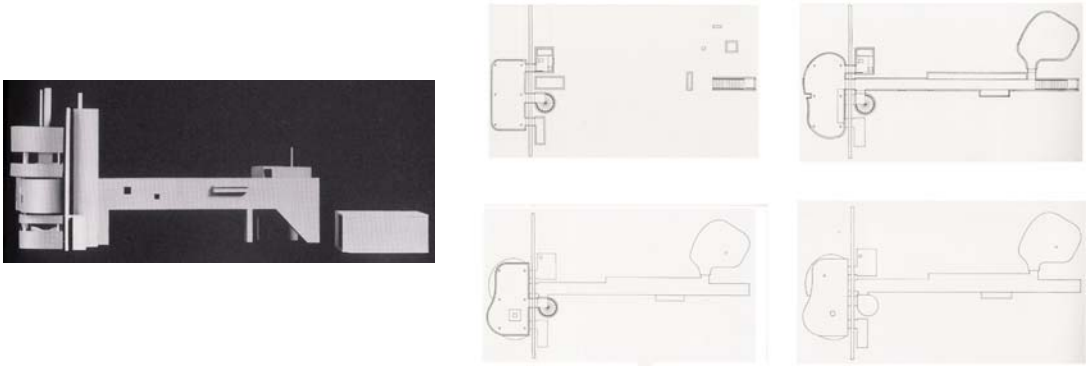


House C

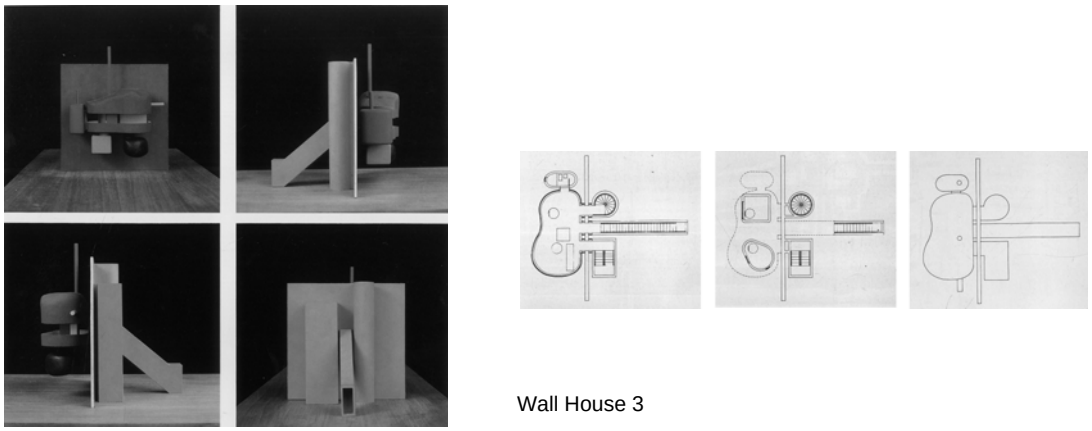
Figure 2. 4 The Diamond Series



Wall House 1



Wall House 2



Wall House 3

Figure 2. 5 The Wall House Series

Moreover, the relationship between the *Diamond Series* and the *Wall House Series* will be examined and then links between them will be identified. Therefore, the thread of the review in this chapter is the emergence of the *Diamond Series*, the evolution from the *Diamond Series* to the *Wall House Series*, and the evolution of the *Wall House Series* into Hejduk's later works, an observation based on the recurrence of such key elements as the diamond configuration and the wall.

2.3.1 1954-1963: The Formulation Period

After finishing school, Hejduk started working on architectural series in 1954. Between 1954 and his first work on the *Diamond Series* in 1963, Hejduk experimented on four major series and several individual projects. The series are *Museums*, *Texas Houses*, *Wood Frame Houses*, and *Piano Houses* (also known as *Variations on a Theme*); and the individual projects are two factories. In each series or project, Hejduk had a clear conceptual intention with which he experimented and which in his own words represented "a form of auto criticism." (Hejduk 1985, 39)

Various Explorations

The primary concerns in Hejduk's early works were structural infillings as well as the play of geometry. For example, Museum 1 (1954) explored the structural infilling in a horizontal plan while Museum 2 (1963) explored the structural infilling in a vertical section (Figure 2.6)

(Hejduk 1985). In the Piano Houses (Figure 2.7) (Hejduk 1985), Hejduk explored "the spatial play of the geometric window openings in the faced-plane positioned against the cell-frame structure (implied structure)." In the two factories, one of which was an Airplane Hangar (Figure 2.8) (Hejduk 1985), Hejduk explored combining large spanned spaces with a multitude of smaller office spaces.

The search for structural infillings and the play of geometry was pushed further in the *Texas Houses* (Figure 2.9) (Hejduk 1985), the last series before the emergence of the *Diamond Series*. In *Texas Houses*, Hejduk searched for "generating principles of form and space in architecture"

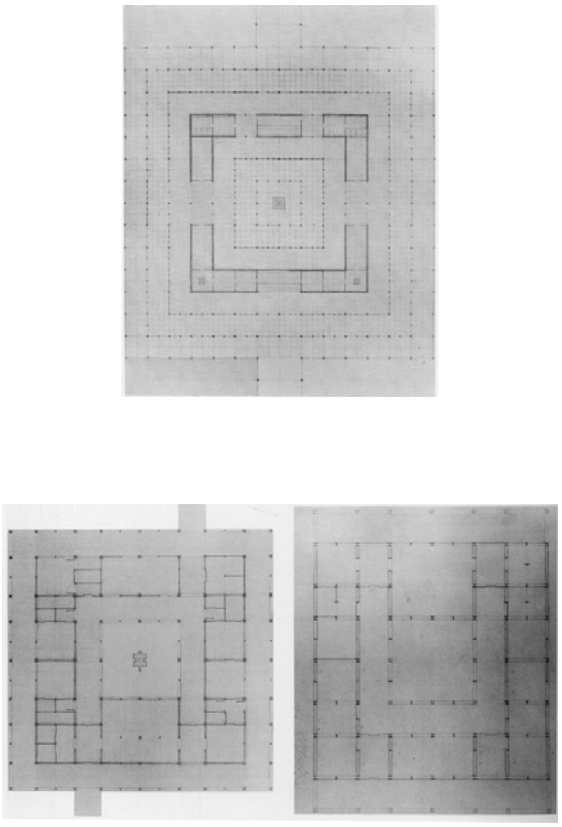


Figure 2. 6 Museum 1 and Musem 2

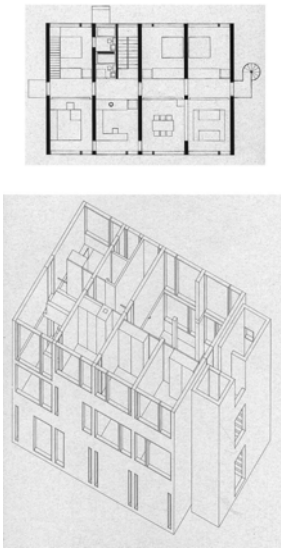


Figure 2. 7 Piano House

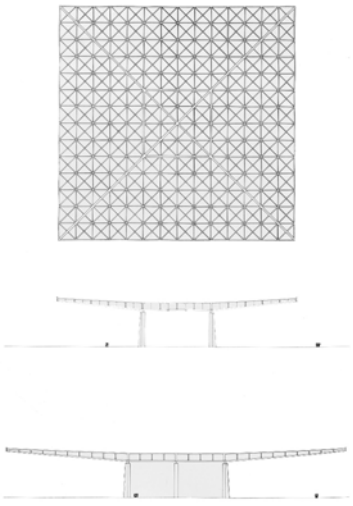
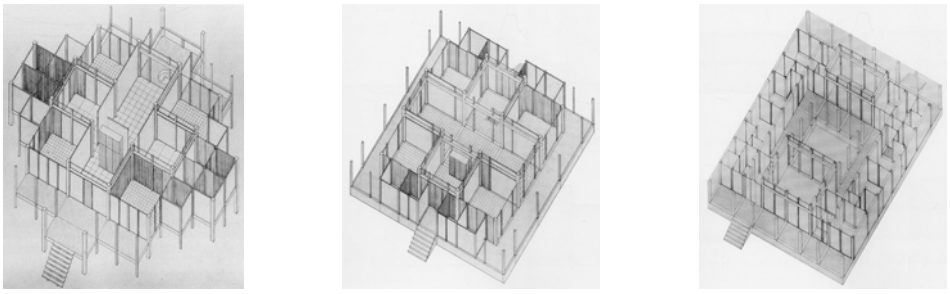


Figure 2. 8 Airplane Hangar



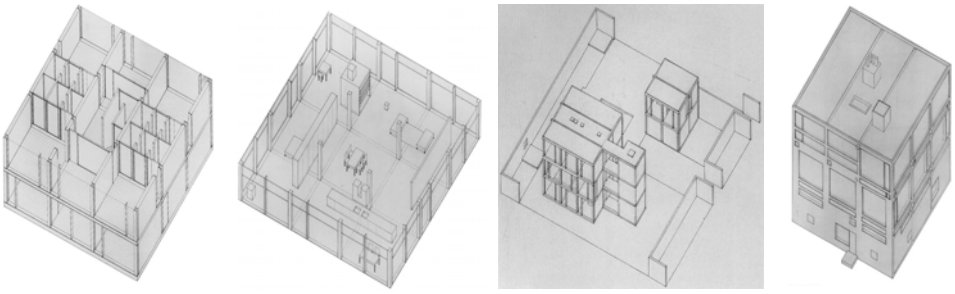


Figure 2. 9 Texas Houses

(Hejduk 1985, 41). Except for House 7, all the other houses have clear solutions to the structure and the color. In each house, Hejduk identified several issues, some of which were not completely addressed by the time the design was finished. The issues in House 1 and House 2 concerned the placing of an asymmetrical program in a symmetrical form-structure. House 2, according to Hejduk, was a clearer, but not entire clear solution. House 3 was a comprehensive exploration of the structural system, such as masonry bearing walls with peripheral columns; architectural details, such as metal-capped, glass-slotted wall ends; and spatial arrangements, such as the central court and the diagonal relationship of the program.

House 4 was an attempt to explore "the reductive element expression of the internal organism upon the peripheral glass facades." (Hejduk 1985, 42) House 5 was the "purest expression" (Hejduk 1985, 43) of the nine-square investigation, especially the free-floating elements within the structural grid. House 6 was an experiment of a subtraction process. The garage, utility, guest and apartment became a volume removed from the prime house. House 7 overlapped with the appearance of the *Diamond Series*. "The idea was to investigate a column-pier-wall construction system. Another issues involved an increase in the visual scale." (Hejduk 1985, 43) It seems as if Hejduk, in his early works, paid equal attention to practical issues, such as structure and detail, and conceptual issues, such as geometry and generating principles. This period of experimentation provided Hejduk with a basis for his more specific conceptual ventures later on.

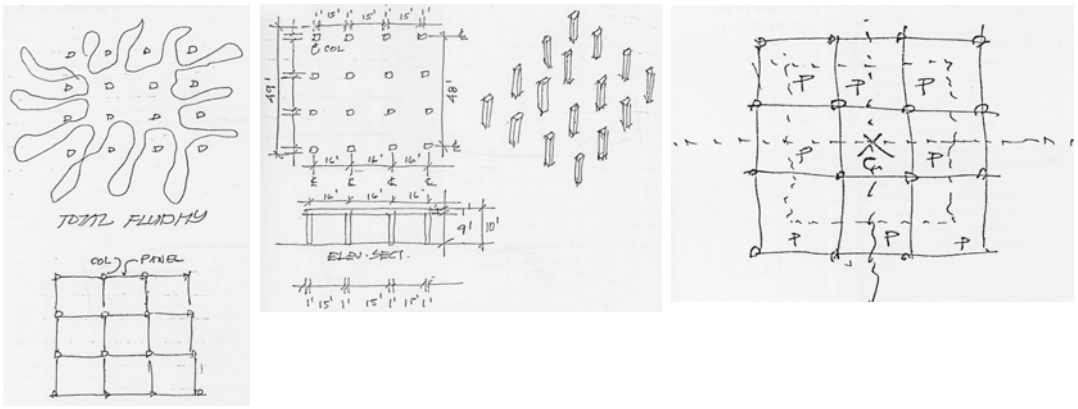
Two Links to the *Diamond Series*

Although Hejduk did various experiments in his early series, he was gradually prepared for the *Diamond Series* both on the conceptual and constructive levels. The following two aspects represent the most direct links to the emergence of the *Diamond Series*.

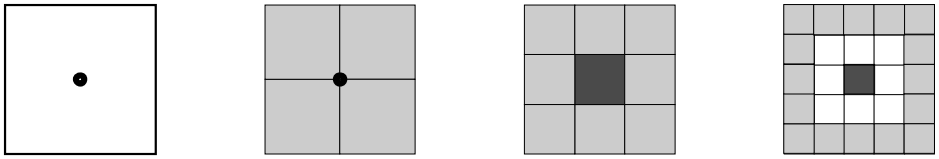
First, as noted, during the Texas years from 1954 to 1956, Hejduk worked closely with artists such as Robert Slutzky, and art critics such as Colin Rowe, who provided an environment in which he could assimilate ideas of modern painting, particularly Cubism. The flatness foregrounded in Cubism became the theme of the *Diamond Series* and the *Wall House Series*.

Second, in this period, Hejduk also set up his own intellectual framework, the *Nine Square Problem*, which embedded the Cubist idea of space in a theoretical architectural setting. One might argue that the *Nine Square* first appeared as the twenty-five squares in the Apartment House when Hejduk first used the square as the module to formulate a bigger square (Figure 2.10e) (Hejduk 1985). He used the *Nine Square Problem* as a pedagogical tool in architecture studios in Texas. On the one hand, the bigger square composed of nine squares provides a grid that equally suggests the possibility of a rigid plan and the possibility of the fluidity of space (Figure 2.10a) (Hejduk 1985). On the other hand, the nine-square-grid indicates the construction ideas such post, beam, and panel (Figure 2.10b) (Hejduk 1985). Moreover, the nine squares diagram a situation of center and periphery (Figure 2.10c) (Hejduk 1985). This configuration was a key of Cubism and was later explored in Hejduk's *Diamond Series*.

Let us look at bigger squares composed of one, four, and nine smaller ones in terms of how the center and the periphery are defined (Figure 2.10d) (Hejduk 1985). In the square of one, the center and the periphery are defined within the module. The center is defined in the empty space while the periphery is defined by the boundary of the square. In the square of four, the center is defined by the meeting point of the four corners of the squares while the periphery is defined by the space of the four modules. The square of nine is the case with the minimum number when both the periphery and the center are defined by the square module. The equality of the module foregrounds the contrast between the space in the center and that on the periphery. In the case of the Apartment House, one more layer of modular space is inserted between the center and the periphery.



a b c



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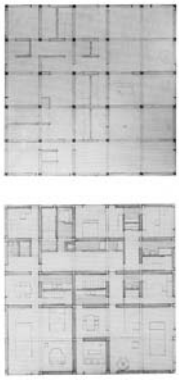


e

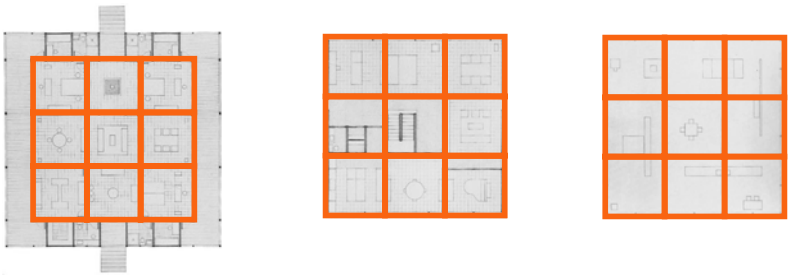
Figure 2. 10 "The Nine Square Problem"

The transition from *Texas Houses* to the *Diamond Series* appeared to be a sudden shift. Originally, Hejduk was planning to work on one *Texas House* a year for ten years, but he interrupted this work at number seven by beginning the *Diamond Series* (Hejduk 1985, 34). However, the nine-square scheme, which was further explored in the *Diamond Series*, had already been overtly exercised in the Texas Houses 2, 4, 5, 6, and 7 (Figure 2.11) (Hejduk 1985). One may see the *Texas Houses* as a prelude of the *Diamonds* in terms of exercising the nine-square problem.

2.3.2 1963-1974: Between the *Diamond Series* and the *Wall House Series*

> "The wall is a neutral condition. That's why it's always painted grey. And the wall represents the same condition as the 'moment of the hypotenuse' in the Diamond houses – it's the moment of greatest repose, and at the same time the greatest tension. It is a moment of passage. The wall heightens that sense of passage, and by the same token, its thinness heightens the sense of it being just a momentary condition … what I call the moment of the 'present.'"
>
> (Hejduk 1985, 67)

A chronology of Hejduk's projects until 1974 was clearly evident in one of his diagrams (Figure 2.12) (Hejduk 1985). The diagram provides a detailed description of the evolution from the *Diamond Series* to the *Wall Houses*. Among the three projects in the *Diamond Series*, the first two are houses and the third is a museum, all of which are published in *Three Projects* (1969). Superficially, the *Diamond Series* was an effort at experimentation in an architectural



House 2 House 4 House 5

House 6

House 7

Figure 2. 11 Texas House and "The Nine Square Problem"

environment using the form of Mondrian's *Diamond Compositions*. On a deeper level, the two major spatial notions that emerged in the *Diamonds* are the flatness of space and the idea of time (past, present, and future). The flatness of space ties the *Diamond Series* deeply with the work of Mondrian. Meanwhile, Hejduk linked the spatial idea of flatness to the present (the idea of time). Therefore, flatness no longer bears a spatial dimension but a temporal dimension. To Hejduk, present was the fleeting moment without depth, so flat space most properly exemplifies the moment of the present. The hypotenuse of the *Diamonds* represents the flat space of the present.

Unlike the *Diamond Series*, the *Wall House Series* has a vague boundary. Wall Houses 1, 2, and 3, the characteristic pieces of this series, most clearly demonstrate the idea of the wall. The focus of this thesis, Wall House 2, also known as the Bye House, was designed in 1973 for A. E. Bye in Ridgefield, Connecticut. For some reason, the Bye House was never built in Connecticut, but instead in Groningen, Netherlands, in 2001. Although the site changed, the design remains the same. However, the size of the house has been scaled up by twenty percent in order to meet the minimum requirements for the construction code.

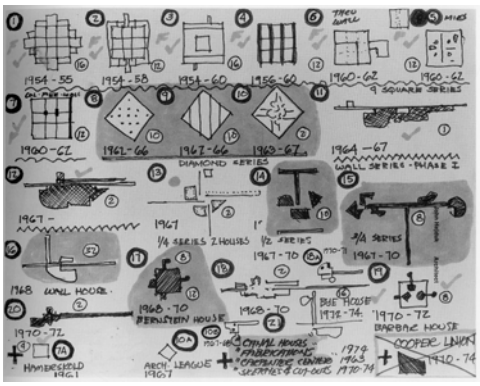


Figure 2. 12 Hejduk's Frame

Before he designed these three Wall Houses, Hejduk also designed Grandfather Wall House[4] (Figure 2.13) (Hejduk 1985), Ambiguity House (Figure 2.14) (Hejduk 1985), Gunn House (Figure 2.15) (Hejduk 1985), Extension House (Figure 2.16) (Hejduk 1985), and Fabrications (Figure 2.17) (Hejduk 1985). These projects can be viewed as extensions of the Wall Houses since the element of the wall was repeatedly elaborated. At the same time he designed the Wall Houses, Hejduk designed six Fraction Houses (Figure 2.18) (Hejduk 1985), taking the basic geometry of ¼, ½, ¾ of a square, a circle, and a diamond. The *Wall House Series* and the Fraction Houses were so closely linked that not only are the sketches of these two series side by side on the same piece of drafting paper, but they also contain the elements of

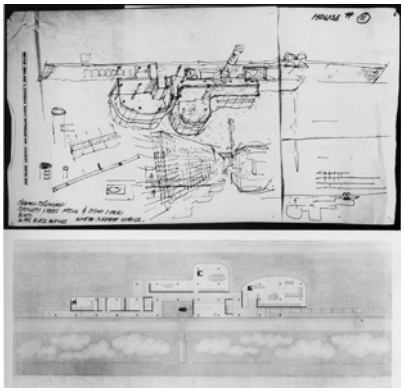


Figure 2. 13 Grandfateher Wall House

[4] The *Grandfather Wall House*, designed in 1963, is considered the first Wall House by scholars.

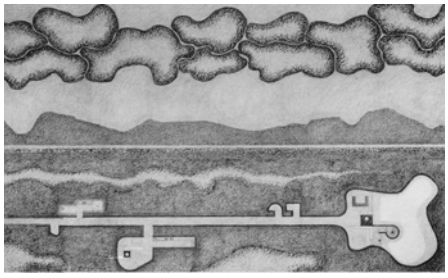


Figure 2. 14 Ambiguity House

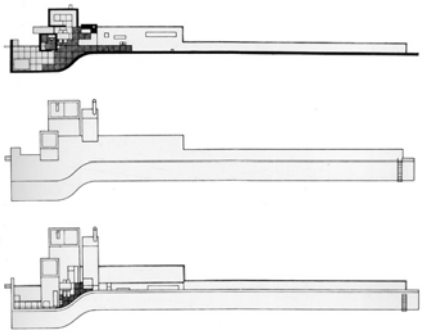


Figure 2. 15 Gunn House

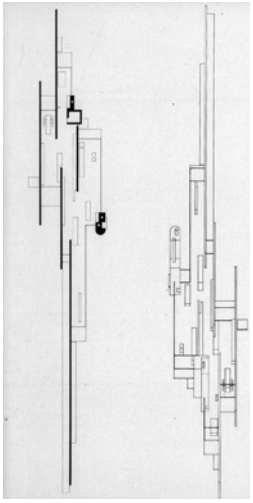


Figure 2. 16 Extension House

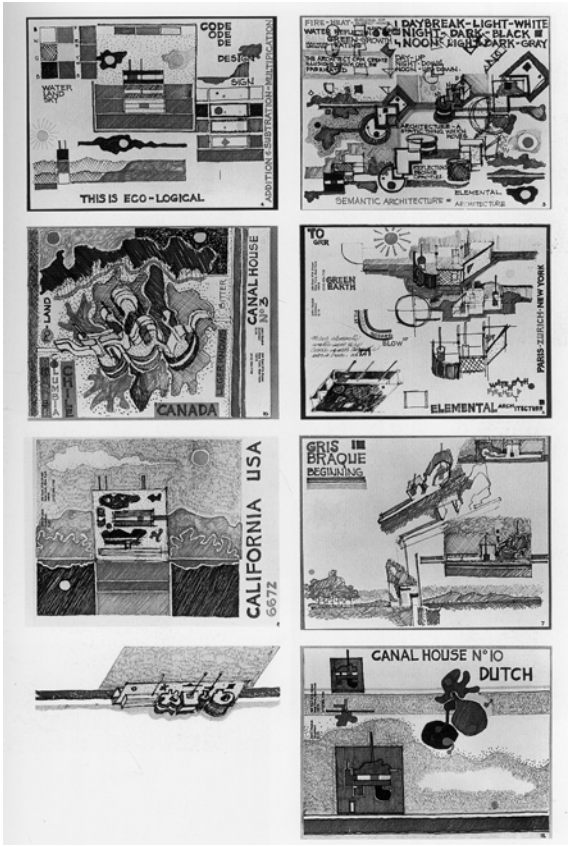
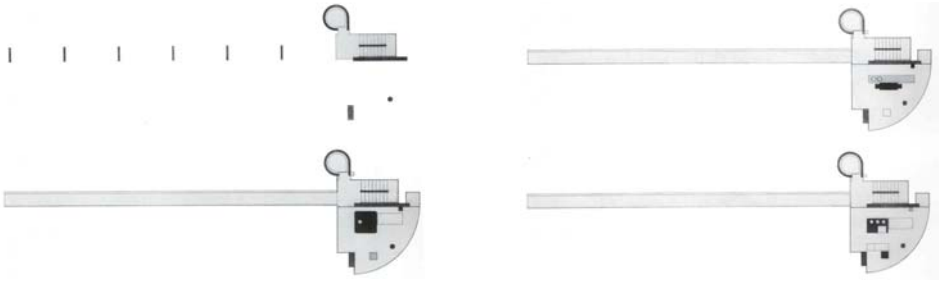
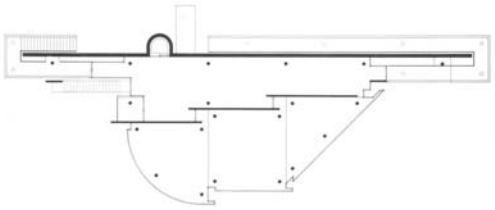


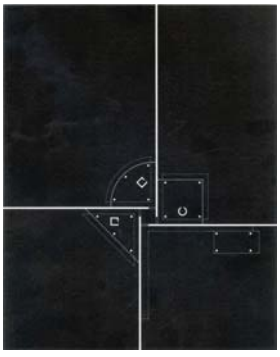
Figure 2. 17 Fabrications



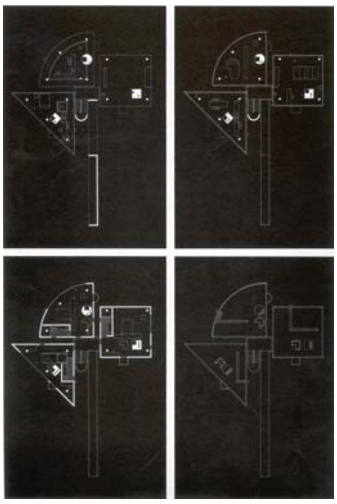
¼ House A



¼ House B



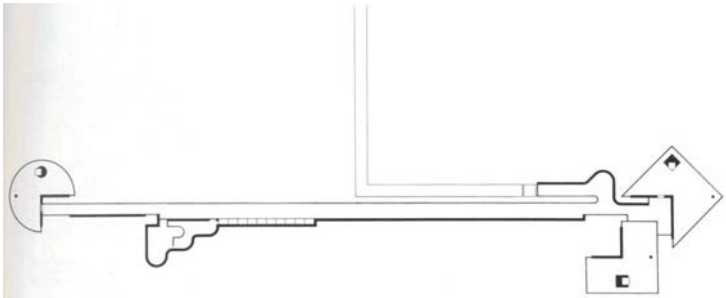
¼ House C



¼ House D

Figure 2. 18 Fraction House Series (To be Continued on Page 81)

½ House



¾ House

Figure 2.18 Fraction House Series (Continued)

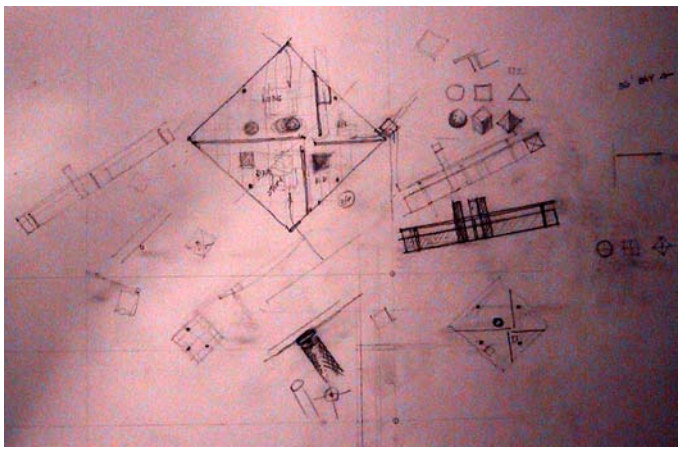


Figure 2. 19 The Transition from the Diamond Series to the Fraction Houses

a square, a circle, and a diamond placed in the diamond boundary (Figure 2.19) (Phtographed from the Canadian Center for Architecture). Not surprisingly, scholars such as Kim Shkapich recognize all of these as Wall Houses.[5]

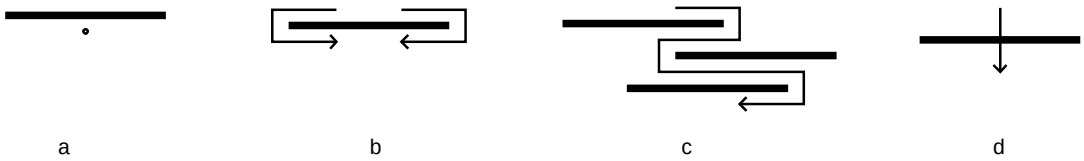
According to Hejduk, the major wall in these three Wall Houses carries the semantic load of defining the past, the present and the future. At this point, distinguishing the notions of "representation" and "semantics" is important. In the case of the wall, representation is an association established between the wall and the idea of the past and the future, but the association may be weak because it may be based on arbitrary denotation. Semantics, however, does not represent a simple association since it may represent a principle for interpreting and handling forms within a design. Thus, semantics presupposes operational logic. In the current study, we will focus more on the aspect of semantics than

[5] From a phone interview in March, 2004.

representation. Therefore, what is important is not if the wall represents the past, the future, or some other ideas, but how the wall is charged in terms of spatial relationships and how meaning is developed from these relationships.

The Crystalization of the Wall Condition

Although the significant wall element was repeated in projects between 1963 and 1974, the relationships between the wall and the surrounding space are radically different, as shown in. Figure 2.20. Figure 2.20a shows the case of the Grandfather Wall House and the Gunn House, in which spaces are placed on the same side of a long wall that functions as a background of the curved volumes. A perspective shows that Hejduk's interest lay in the gap between the wall and the volumetric elements (Figure 2.20e) (Hejduk 1985). Figure 2.20b shows the case of ¼ House B, where the wall is also used as a background. However, ramps are designed to force movement around the wall, designed to create an experience around it in which time is elongated with the presence of the wall. Figure 2.20c shows the case of the Extension House, in which the shifted positions of the parallel walls suggest both the rigid directionality and the free flow of the space. The movement is arranged along and around the walls. Only in Wall Houses 1, 2, and 3 and in Fabrications, shown in Figure 2.20d, is the wall being crossed so that time, defined by the wall, is the shortest among all the other conditions, and the space becomes the flattest.



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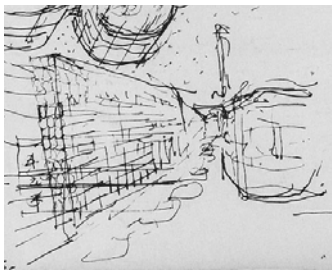

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Figure 2. 20 Space around the Wall

Projects During the Same Period

From 1971-1972, at the same time he designed the Wall Houses, Hejduk designed a house for his daughter called the Element House (Figure 2.21) (Hejduk 1985). The wall element in this project is not as explicitly expressed as it is in the Wall Houses. The Element House was meant to be a children's textbook, designed to explain architecture on a minimum level. The functional and symbolic elements were minimized in the design of this house. Although the two houses differ in appearance, the Element House is tightly related to the Fraction House, the Diamond House, and the Wall House. The design of the Element House strongly resonates in the Fraction Houses, in which the elements of the circle, the square, and the

diamond appear. It is also similar to the *Diamond Series* and the Wall Houses with regard to the notion of the flattened present in space. The vocabulary in the Element House is also tied to the Wall Houses, in which the contrast between the biomorphic shapes on the surface of the house and the geometric shapes inside the house are evident, and the color gray defines the neutral moment of entering the house and crossing the wall.

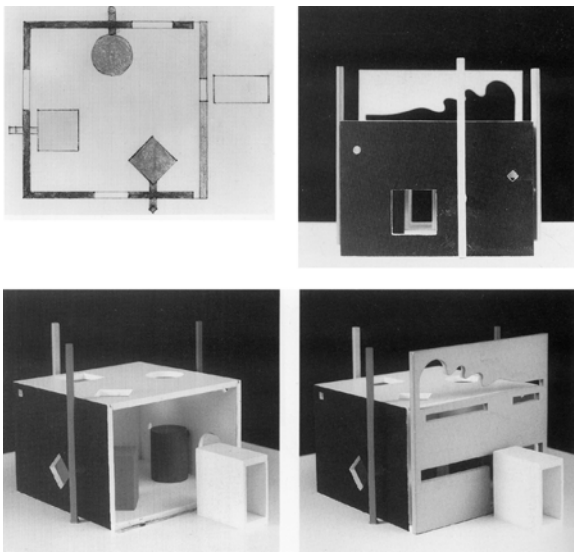

Figure 2. 21 Element House

Other key projects in this period are the Red-Yellow Houses and the Bernstein House, studies of house in the cube profile. Thus, their vocabulary is distanced from that of the Wall House. However, one may consider the cubic boundary of the wall as creating the effect of wrapping around the wall in the Wall Houses. In the Bernstein House, the vertical circulation space for mobility and the space for immobility are separated by the wall of the

boundary. This spatial separation by the wall links it to Wall Houses (Figure 2.22) (Hejduk 1985). Another important project is the Cooper Union Foundation Building Renovation, designed and built as the working drawings of the Bye House were completed (Figure 2.23) (Hejduk 1985). Superficially, we see a trace of the Bye House in the vocabulary of this building. However, their mutual implications require much more serious and detailed research, one of the goals for future research.

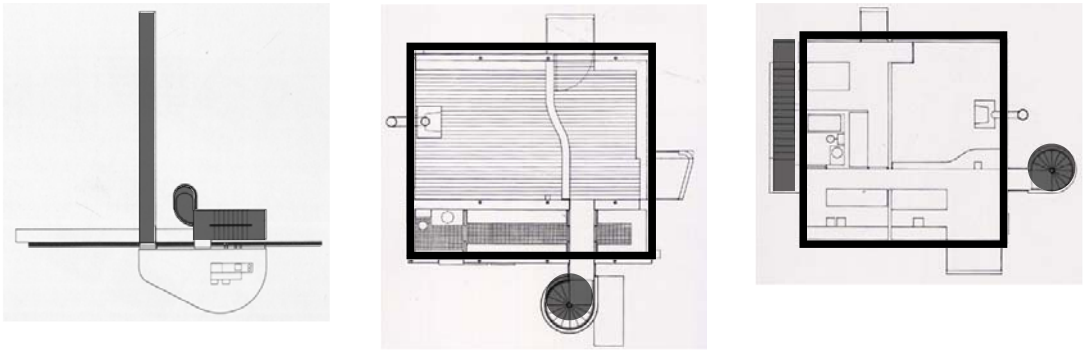

Figure 2. 22 Separation Defined by the Wall

Figure 2. 23 Cooper Union Foundation Building Renovation (Model)

2.3.3 After 1974: The Recurrence of the Wall House Theme

> "Since 1974 Venice has preoccupied the nature of my work. It is a forum of my inner arguments. The thoughts have to do with Europe and America; abstraction and historicism; the individual and the collective; freedom and speech; the literal and the ambiguous; narrative and poetry; the observer and the observed… I suspect in these past four years my architecture has moved from the "Architecture of Optimism" to what I call the "Architecture of Pessimism."
> (Hejduk 1985, 83)

Hejduk considered the Wall Houses as a transition point between the "Architecture of Optimism" to the "Architecture of Pessimism." After the Wall Houses, the narratives of loneliness, strangeness, and death became more dominant in his architectural projects. The narratives took three forms in his projects. First, he designed projects for specific characters such as painters, musicians, and loners. Second, he associated them with places such as Venice, Berlin, and Prague. Third, and most importantly, he designed them with "rituals" so that once the building was designed, a story about how the building was going to be used was told. Interestingly, the Wall House theme re-appeared in some of the projects that interwove the various narratives.

The Trilogy

Following the *Wall House Series*, Hejduk designed the *Trilogy*, consisting of the Cemetery for the Ashes of Thought, the Silent Witnesses, and the New Town for the New Orthodox. The first and the last possess an apparent homage to the Wall Houses. Cemetery for the Ashes of Thought is identical to Wall House 3 (Figure 2.24) (Hejduk 1985). However, the context of a cemetery is situated in the articulation of the past, the present, and the future.[6] The house is "in the lagoon on a man-made island" for "sole habitation of one individual for a limited of time. Only one individual for a set period of time may inhabit the house, no others will be permitted to stay on the island during its occupation. The lone individual looks across the lagoon to the Cemetery for the Ashes of thought." (Hejduk 1985, 80) Interestingly, the space, a place for thinking about the future in the Wall Houses, is a place for looking at the cemetery and remembering.

The New Town for the New Orthodox was Hejduk's very first town plan (Figure 2.25) (Hejduk 1985). The verticality of the houses in this town resonates in the wall houses. As Hejduk mentioned later, "You can see water, quay and then the house, court, house, quay and canal. It's all vertical, all the little houses are wall houses, minimal wall houses…" (Hejduk 1985, 84) The town was designed for death in that the status of the cemetery determines the moment when the town would be abandoned. The number of coffins in the cemetery is the same as the original number of the residents in the town. When the last

[6] The Molino Stucky Building's exteriors are painted black. The Molino Stucky Building's interiors are painted white. The long, extended walls of the Cemetery of the Ashes of Thought are black on one side and white on the other side. The top and end surfaces of the long extended walls are grey. Within the walls are one foot square holes at eye level. Within each one foot square hole is placed a transparent cube containing ashes…

coffin in the cemetery is filled, the town is abandoned. As Hejduk observed, each little house in the town is a minimal wall house. The original semantic load of the Wall House–in the past, the present, and the future–is extended to the whole town.

The North East South West House (between 1974 and 1979)

The North East South West (NESW) House is among the houses in the City of the Angels. The design of the NESW House relates to the path of the sun such that all four of the Wall House units are arranged in the form of a pinwheel (Figure 2.26) (Hejduk 1985). They face north, east, south, and west. Different functions and colors are assigned to each direction. East is a green element against a white wall, south is a brown element against a yellow wall, west is a mauve element against a grey wall, and north is a blue element against a black wall. "The green is for eating and dawn; the brown is for living and day; the mauve is for retiring and evening; the blue is for ablution and night" (Hejduk 1985, 88). Hejduk suspects one would circle the spin-wheel to perform his or her everyday life. Thus, the idea of going from the past, the present, and towards the future is re-articulated in the form of rotation. The walls not only clearly define directions but also register the key moments of rotation. The Wall Houses serve as elements under an overall structure in the NESW House.

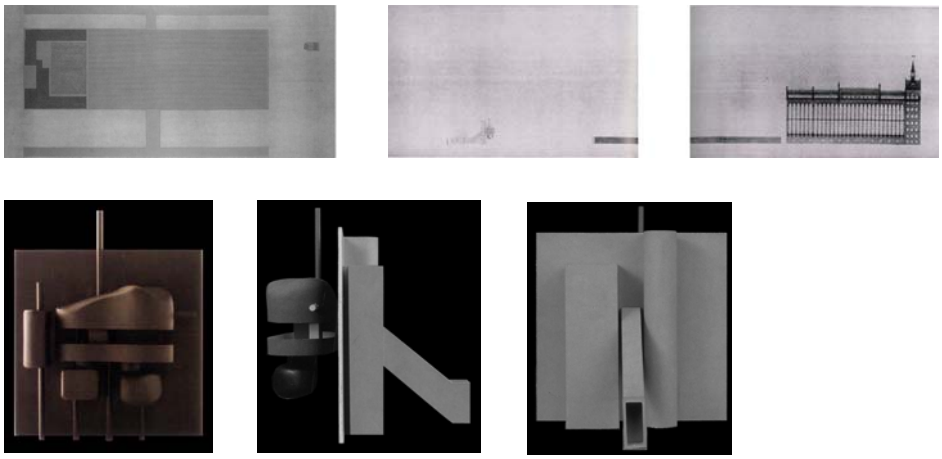

Figure 2. 24 Cemetery for the Ashes of Thought

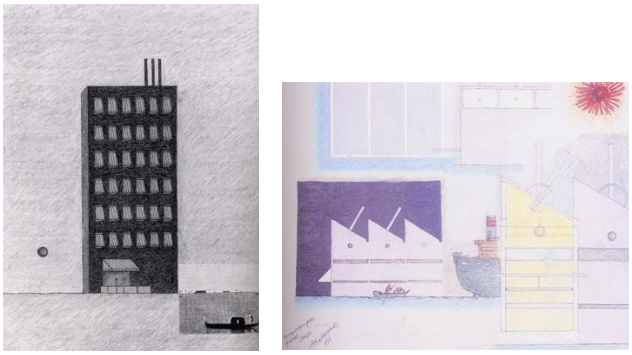

Figure 2. 25 New Town for the New Orthodox

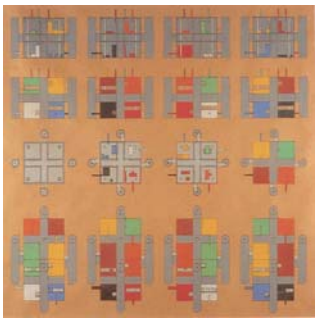

Figure 2. 26 North East South West House

The 13 Watchtowers of Cannaregio and The House for the Inhabitant Who Refused to Participate (1979)

The 13 Watchtowers of Cannaregio project was designed for the city of Venice. It has a Christian hint in the number 13 and in the placement of a long table in front of each tower sequentially. The fourteenth house is a Wall House (Figure 2.27) (Hejduk 1985), where one person was selected to live until he could move into one of the 13 towers when a resident of a tower died. The vertical structure of space in the Wall Houses extends to the spatial arrangement of the 13 towers with seven floors, each of which contains one function such as entering, bathing, sleeping, eating, living, and overlooking the outside. The seventh floor is the four top edge surfaces of the tower capping.

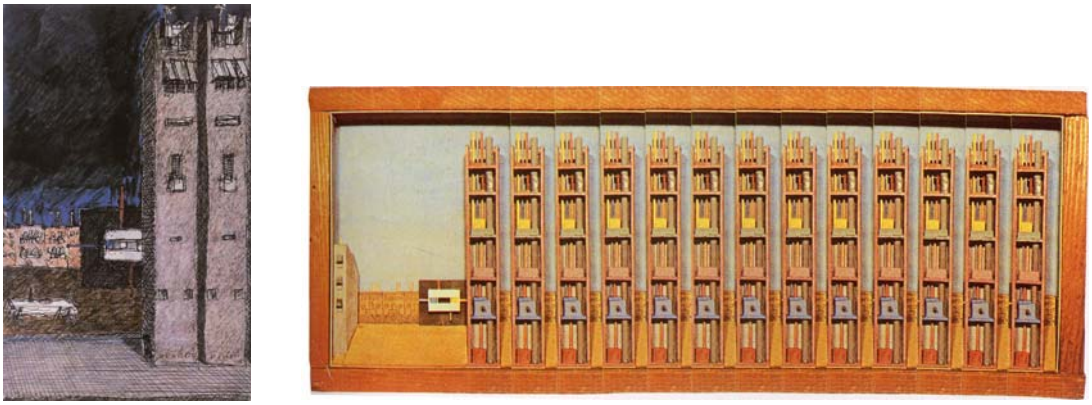

Figure 2. 27 13 Watch Tower

In the same period of time, Hejduk designed The House for the Inhabitant Who Refused to Participate (Figure 2.28) (Hejduk 1985). The structure of this house, also designed for Venice, is again a wall on which twelve 6'x6'x9' units are hung, the wall being the thirteenth unit. Each unit contains a piece of furniture or equipment that serves a particular function, such as a kitchen sink, a kitchen stove, a dining table and chair, a refrigerator, a bed, a study table and a chair, a loveseat, a bath sink, a bathtub, a shower, and a toilet. The inhabitant has to constantly cross the wall in order to perform his everyday life. The seventh unit is empty and faces a mirror fixed on an opposite tower in such a way that the inhabitant simply sees a reflection of himself in the mirror. Another citizen is permitted to enter the tower and observe the one inhabitant without being seen. However, the citizen has a risk of being permanently locked in the tower if another citizen releases the overhead tower door.

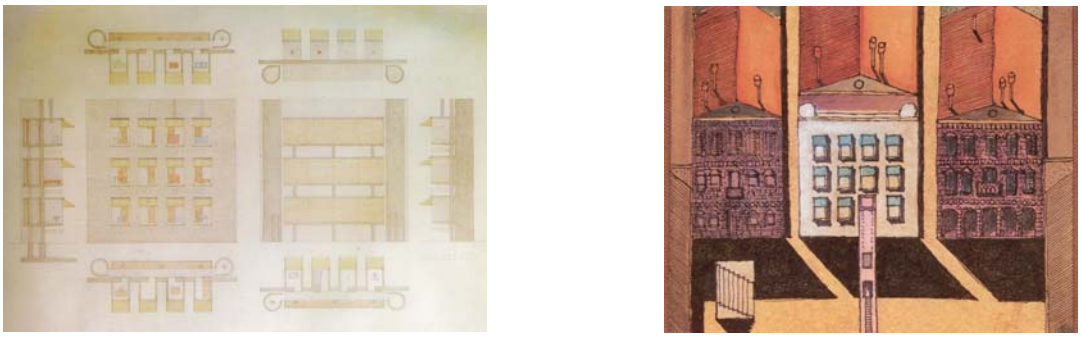

Figure 2. 28 The House for the Inhabitant Who Refuses to Participate

Other Works

The Wall House theme kept re-appearing in Hejduk's later works. For example, a Wall House was also moved from the 13 Watch Towers of Cannaregio in Venice to the Berlin Mask (Figure 2.29) (Hejduk 1985). A series of twenty-four Andalusian Houses appeared in 1995 (Figure 2.30) (Hejduk 1997). A mysterious series, the Andalusian Houses consist of only twenty-four colored drawings of frontal projections, and as such, these twenty-four objects cannot be understood in three-dimensional space. In addition, no detailed descriptions accompany the images of this project in its original publication of *Pewter Wings, Golden Horns, and Stone Veils*. However, it is clear that the figures in these drawings share the same structure as the Wall Houses. That is, the objects penetrate the wall elements, which are all covered in wall-paper-like patterns.

In *Adjusting Foundations* (1995), Wall House was transformed into the Maze House (Figure 2.31) (Hejduk 1995), *The Still Life Trilogy* (Cemetery for the Ashes of the Still Life Painters, House/Studio of the Still Life Painter, Medical Complex: Painter's Journey) (Figure 2.32) (Hejduk 1995), Sound Volume House (Figure 2.33) (Hejduk 1995), Icarus Arisen, Persephone's Descent (Figure 2.34) (Hejduk 1995), House in Harbin (Figure 2.35) (Hejduk 1995), and Seville Structure (Figure 2.36) (Hejduk 1995). In some cases, the wall remains. Sound Volume House, House in Harbin, Icarus Arisen, Persephone's Descent, and Seville Structure are in the same scheme as the Andalusian Houses. In other cases, the wall is offset by a close distance such that a flat space is created. In the Cemetery for the Ashes of the Still Life Painters, the flat space is used as storage for the dead painter's works. In House/Studio of the Still Life Painter, the flat space is also used as storage for paintings. In Medical

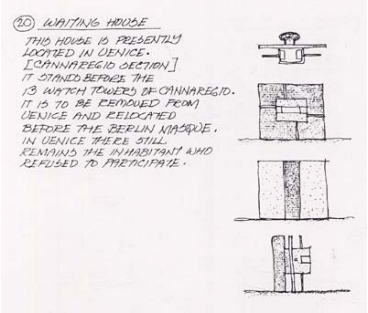

Figure 2. 29 Wall House in Berlin Mask

Figure 2. 30 Andalusian Hoses

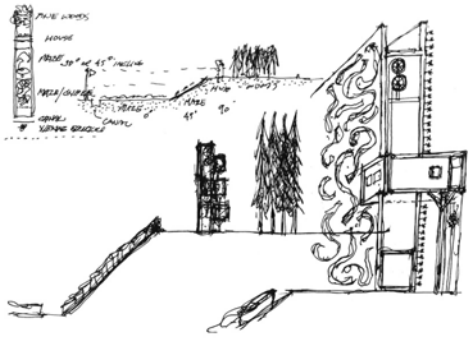

Figure 2. 31 Maze House

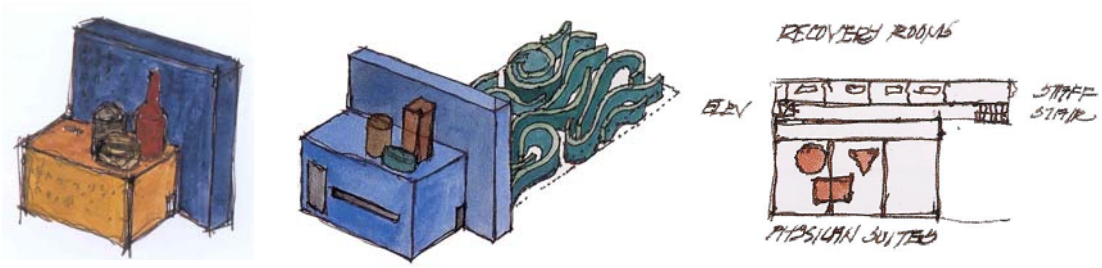

Figure 2. 32 Still Life Trilogy

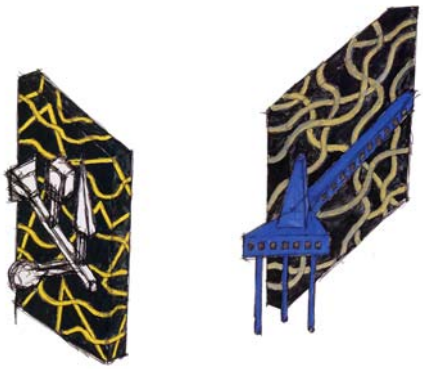

Figure 2. 33 Sound Volume House

Figure 2. 34 Icarus Arisen, Persephone's Descent

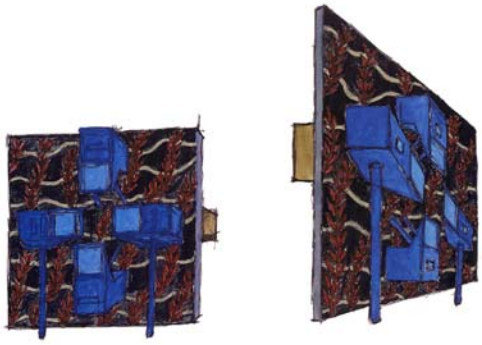

Figure 2. 35 House in Harbin

Figure 2. 36 Seville Structure

Complex: Painter's Journey, the flat space becomes storage for the painters, or recovery rooms. The flat space in these three projects is ironic in terms of being the register of the transient present. In the Cemetery for the Ashes of the Still Life Painters and the House/Studio of the Still Life Painter, the flat space is in fact the storage of memory. Only in the Medical Complex: Painter's Journey does the flat space represent the present, albeit an elongated present, since the recovery period is longer than a fleeting moment.

The reappearance of the Wall House theme culminates in the project Cathedral (1996) (Figure 2.37) (Hays 2002), the most complex single object of Hejduk's career. Apparently, the Cathedral is intended as a summation of all his work. It gathers Hejduk's formal inventions, such as Wall House 3, the Collapse of Time tower, and the various volumes that he experimented with in his architectural "still life." The wall condition is amplified in the repeated penetrations constructed between the formal elements and the vertical wall of the cathedral.

At last, a set of drawings called *Sanctuary 3*, currently in The Menil Collection, contains several sketches of sanctuaries and chapels in a triangular plan with crucifixes suspended at various angles. In a project entitled Chapel, Wedding of the Moon and Sun (which Hejduk gave to Charles Gwathmey, this triangular configuration reappears. These projects were probably the last works of Hejduk. Hays pointed out that "the triangle states the stage inbetween – a diamond in the process of flattening. A diamond becoming a wall." (Figs. 2.38 and 2.39) (Hays 2002)

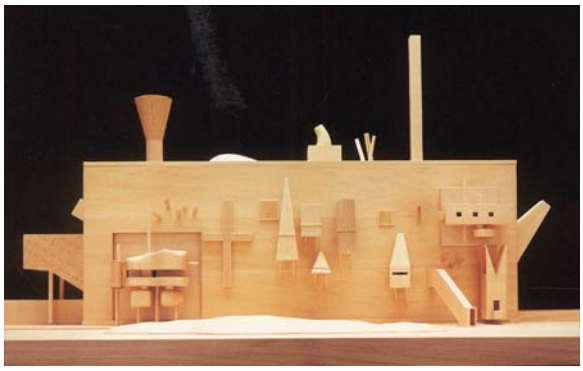

Figure 2. 37 Cathedral

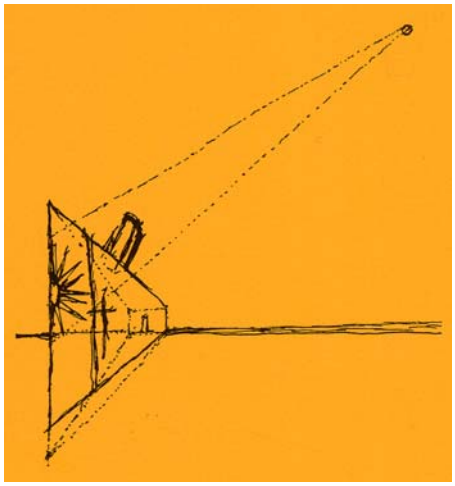

Figure 2. 38 Wedding of the Sun and Moon

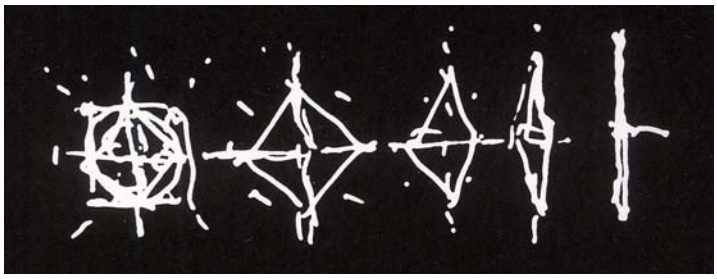

Figure 2. 39 Hejduk's Diagram: A Diamond Flattened into a Triangle

2.4 Architectural Drawing

Hejduk's architectural drawings evolved alongside his architecture. Before Hejduk designed the *Diamond Series*, the majority of his drawings were modernistic, with a clear plan, section, elevation, and perspective. However, his watercolor sketches in Italy (1954) revealed a different quality, as the lines and shapes were imprecise, and the colors strong and primitive. Buildings were painted in frontal elevations.

The years between the *Diamond Series* and the *Wall House Series* were also the years when Hejduk's architectural drawings showed more awareness of drawing elements. As evidence of this awareness was the creation of his peculiar axonometric projection system. By choosing a specific projection angle, Hejduk was able to depict only two sides of a cubic object instead of three in his axonometric drawings. Details of these drawing will be discussed in Chapter 4.

A trace of the axonometric system of the period of the *Diamond Series* appeared in the Hammarskjöld Memorial during the same time. When producing the drawings of the memorial, Hejduk noticed an interesting phenomenon: a square that appears to be a diamond in the axonometric drawing (Figure 2.40a) (Hejduk 1985). This observation evolved into Hejduk's axonometric drawings in which a diamond appears to be a square in the *Diamond Series* (Figure 2.40b) (Hejduk 1985). He acknowledged that faint murmurs of the future isometric projection systems of the Diamond Projects began in the isometrics of the Hammarskjöld Memorial. (Hejduk 1985, 34).

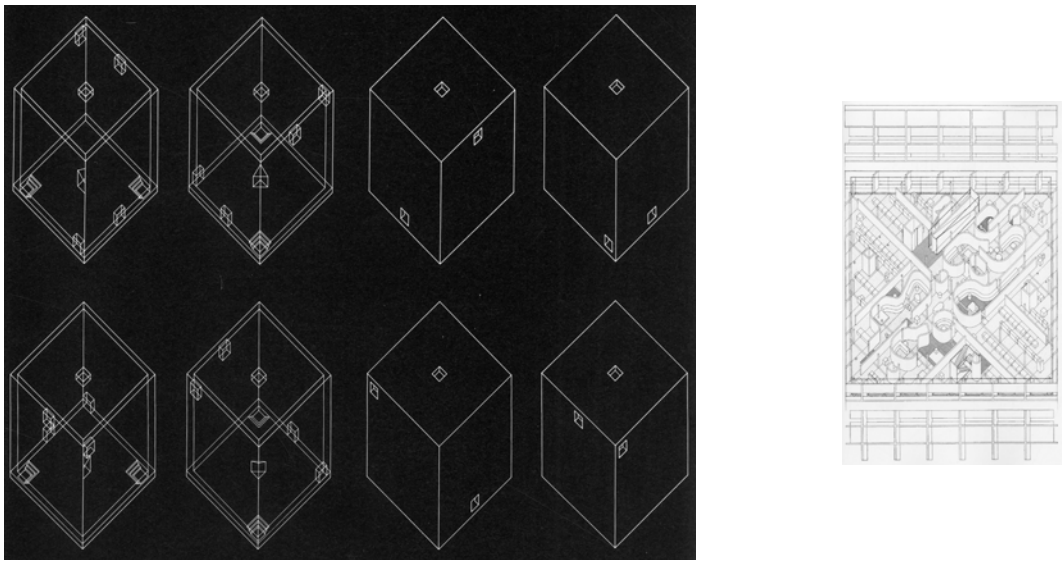

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Figure 2. 40 The Awareness of the Square-Diamond Transformation in Axonometric Projection

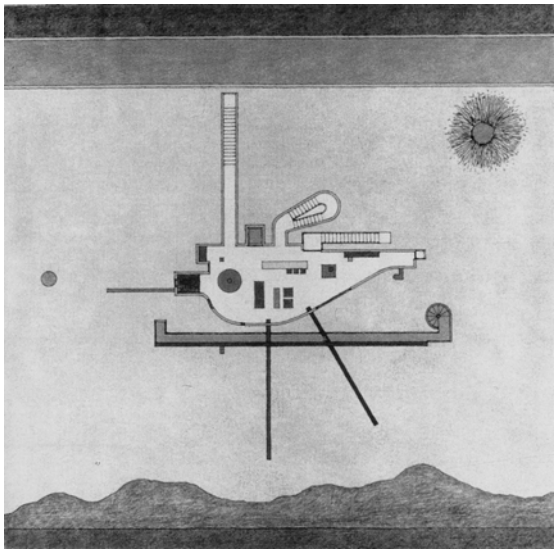


Figure 2. 41 Wall House Sketch

The design of the *Wall House Series* was also combined with the emergence of peculiar drawing qualities, one of which was plan in elevation (Figure 2.41) (Hejduk 1985). In one Wall House sketch, the background shows an obvious horizon. The mountains horizontally lie under the upper-right sun and a left-side moon. Interestingly, a plan is situated in-between. Furthermore, the shape of the plan resembles a bird, which is even more obvious in the background of the sky. Thus, the viewer alternates between reading this drawing in vertical orientation and in horizontal orientation.

The drawing of the Ambiguity House also has a background of sky and ground (Figure 2.14). In this case, the plan of the house is drawn on the ground, generating two possible readings. On the one hand, the background can be read in the same manner as Hejuk's axonometric projection so that everything above the horizon is in elevation and everything below the horizon is in the plan. This reading fixes the plan of the house within the plan of the ground. On the other hand, the background can be read as a single elevation. The plan of the house, since it is "in" the ground, appears to be a section of a tunnel.

Hejduk's experiment on the relationship between plan and elevation is most clearly illustrated in an axonometric drawing where a wall-house-like object is duplicated in a plan (Figure 2.42). The idea was also extended to the studio in which he taught. According to an interview with Diane Lewis, Hejduk once asked the students to work on a house whose elevation and plan should remain as similar as possible.

Furthermore, an interesting sequence of plans and sections of Wall House 1 appeared. As we know, both plan and section are cut through the building objects. The basic purpose of these

cuts is to explain the inner structure of the building object. However, the plans and sections of Wall House 1 seem to foreground something else. The house is cut so that the longest section and the shortest section are at the beginning and end of the sequence. The in-between sections show a gradual change from the longest section to the shortest (Figure 2.43) (Photographed from the Canadian Center for Architecture). The longest section includes each element of the building while the shortest section includes only one element, the wall. For the purpose of showing the inner structure of the building, the section of the wall is not necessary.

One is tempted to read the sequence of sections through the house as a symmetrical conceptual narrative. Traveling from left to right, the sequence of drawings starts from a presentation of essentially all the main elements and ends with the wall as an impoverished skeleton. Traveling in reverse from right to left, the sequence starts with the wall as a structural principle, and ends with the whole composition as an elaboration of relationships potentially implied by the wall. Thus, while the plans continue to emphasize the asymmetry between circulation and main-use spaces that would be continuously inhabited by the body, the sections, taken as a set, allow us to retrieve a conceptual tension that can be interpreted as an underlying design motive. Thus, the seeming redundant section in the series is in fact the key to narrating Hejduk's design concepts instead of narrating in realistic three-dimensional views. In other words, the sequential plans and sections are meant to build a logical statement of the Wall House.

Hejduk's later sketches and watercolors, some of which retained the precision of those in earlier years, changed in style. Some of them became narrative images with figures while

others comprised stark lines that seemed to be repeatedly drawn. However, as it does not relate to the focus of this thesis, an in-depth study of these drawings is not necessary.

The brief review of Hejduk's drawings indicates a mixture between linear drawings and painterly renditions, raising questions about the relationship between the sensual and the conceptual. Seeing drawings with lines is to recognize edges, shapes, and objects while seeing them in a painterly way is to see in shades of color and light, a visual-sensual field. This thesis will focus on Hejduk's axonometric drawings, which belong to the former category.

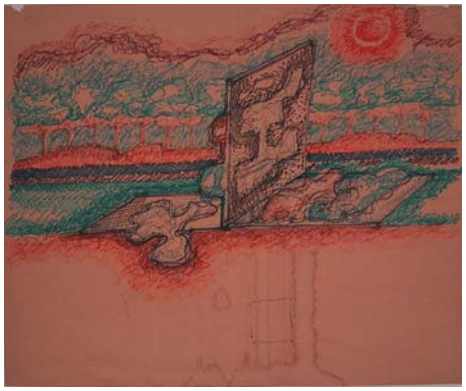


Figure 2. 42 Hejduk's Drawing Illustrating the "Flipping" of Elevation and Plan

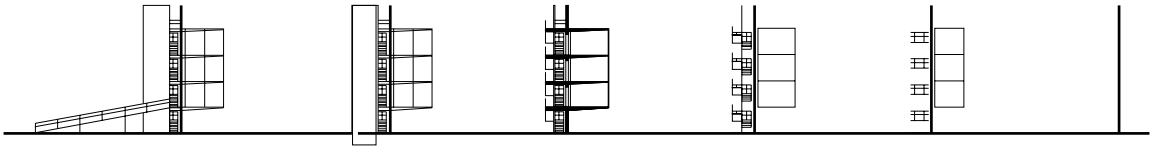


Figure 2. 43 Hejduk's Section Series

2.5 Hejduk versus Corbusier

An understanding of Le Corbusier, more so than the *New York Five,* is essential to the understanding of Hejduk, since Hejduk does not see as strong an intellectual connection to the latter as he does in the former.[7] As noted in the introduction, Hejduk is not only influenced by Le Corbusier, as are many other architects, but also connected to him in a much deeper way. At the beginning of the book *Mask of Medusa*, Hejduk although a generation after Le Corbusier, is "heavily, heavily influenced" (Hejduk 1985, 26) while "twice removed." (Hejduk 1985, 26) This best summarizes the relationship between the generation that Corbusier represents and that Hejduk represents.

Besides living and working in the generation influenced by Le Corbusier, Hejduk has more specific connections to him. Hejduk's study of Le Corbusier is not limited within the domain of architecture but crosses the boundaries among media. Hejduk discusses an umbilical cord in *Out of Time and Into Space* between Le Corbusier's Visual Arts Center at Harvard and Juan Gris and Fernand Léger's paintings.

Hejduk admitted that in such projects as the *Texas Houses* and the *Diamond Houses*, he "exorcised Le Corbusier." (Hejduk 1985, 36) At the same time, he is annoyed by the Corbu overtones, stating, "So I had to get rid of that, by working it out, by exorcising the images." (Hejduk 1985, 36)

[7] *John Hejduk: Builder of Worlds*, an interview conducted by David Shapiro, produced and directed by Michael Blackwood Productions, New York (1991, 28 min.).

> "From 1953 to about 1963, I would take Corb books and just pour over them, looking at them, night after night, literally, just going through the books, athousand times, until I had absorbed Corbusier… absorbed the images, the organizations, into me as an organism, like blotting paper. Now I don't have to look at them. I haven't looked at them for ten years."
>
> (Hejduk 1985, 36)

Hejduk thinks that Le Corbusier should have designed a Diamond House. He regards himself as "a fly that comes in and says, 'Ok, here is one aspect that has been left out, yet which has great potentiality, it should be wrapped up.'" (Hejduk 1985, 129) Among those important works by Hejduk, the *Wall House Series* has a direct link to Le Corbusier. Hejduk wrote a piece on Le Corbusier's Salvation Army Building in which, he admits, he began to clarify certain Wall House issues.

> "The problem as I saw it was that the biomorphic forms placed in front of the gridded frame were located on the lower grade level; I felt the necessity that the wall be freestanding, acting as a tableau upon which the biomorphic elements should be suspended."
>
> (Hejduk 1985, 59)

The design of the Wall Houses as well as the Diamond Houses has always involved the theme of "the hypotenuse," or in the early stages of development "the centralized relief upon a tableau." To Hejduk, the source of this theme is in Le Corbusier's work, Cité de

Refuge Building of 1929-1933 and the Swiss Pavilion of 1930-1932 (Hejduk 1985, 66), as well as in paintings by Cubist painters such as Picasso, Braque, Gris and Léger.

Among Le Corbusier's works, La Roche influenced Hejduk deeply, not only changing his sense of color (Hejduk 1985, 76) but also, more importantly, affecting his psyche (Hejduk 1985, 127). Hejduk was at La Roche in 1972 for seven days exhibiting his Wall House and said that it had changed his life. (Hejduk 1985, 126) Hejduk synthesizes these understandings in the poem, *La Roche*.[8]

> "After visiting *La Roche* my sense of color changed. The colors there were muted and saturated at the same time, and they changed constantly. I saw how the primary colors could be greyed down, and yet made more saturated, more dense. So the Bye House is a color Wheel of muted primaries. And muted complements. Which a grey wall. The wall is like a filter – a neutralizer. The grey of the wall is in all of the other colors, which are thereby neutralized… muted, yet more intense."
> (Hejduk 1985, 76)

Hejduk's specific reading of La Roche foregrounds the idea of undertones, or otherness.

> "The La Roche House deeply affected my whole psyche, and others, too. The program was perhaps extremely specific but of another kind. Today we put labels here, 'dining room,' 'living room.' We can erase all those and put together listings

[8] This poem is published in Such Places as Memory (1998).

> which don't just make more sense, but all the sense in terms of the *experience of this house*. La Roche was a catalytic experience; it changed my entire architectural life." (Hejduk 1985, 126-127)

To Hejduk, the house can be read as a church: The three-story entrance is the congregation area; the balcony on the second floor is the pulpit; the black marble table might be the altar; and the little garden stones out under the living room are like tombstones. However, underneath the seemingly ordinary appearance, something else is happening, which Hejduk refers to as "otherness." The idea of otherness will be explored in more detail in Chapter 6 and 7.

Although the architectural concepts of Hejduk can be traced back to Le Corbusier's work, the difference between their works cannot be denied. Putting side by side the axonometric drawing of Le Corbusier's *Villa Roche* and that of Hejduk's *Wall House 2*, one intuits that the former exemplifies multiple and surrounding views of space while the latter is a rather constrained monologue of space (Figure 2.44). As interesting an observation as it is, analyses are needed to support it. If proven to be true, it might help us to understand how Hejduk constructs his two distinguishing architectural concepts, flatness and otherness, in space. We will revisit this issue latter in this thesis. In terms of methodology, Le Corbusier's work will be used as a contrasting reference to clarify Hejduk's work.

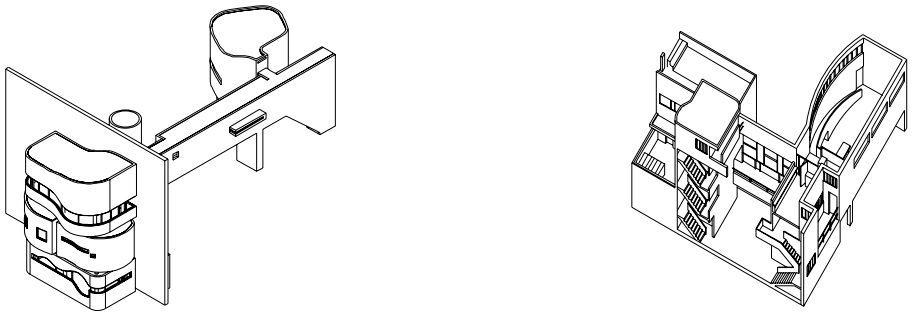


Figure 2. 44 Hejduk's Wall House 2 versus Corbusier's Villa Roche

2.6 Chapter Conclusion

A visual chronology can best provide a summary of Hejduk's work (Figure 2.45). Hejduk has intertwined the four media – painting, poetry, architectural drawing and architecture – throughout his career. However, we are still not clear how a work in painting is re-stated in Hejduk's poetry, architectural drawing and architecture or what role does his poetry or architectural drawing play in relation to his architecture. Therefore, the descriptions in this chapter, which remain on a factual level, will be the basis for further analyses.

The three series, the *Diamonds*, the *Fraction Houses*, and the *Wall Houses*, reflect each other on the conceptual level, with the *Wall House Series* following the *Diamond Series*. Flatness and otherness repeatedly occur in the discussion of both the *Diamond Series* and the *Wall House Series*. The following chapters will define these two notions and then discuss, in depth, the way in which flatness and otherness are constructed within the system across media.

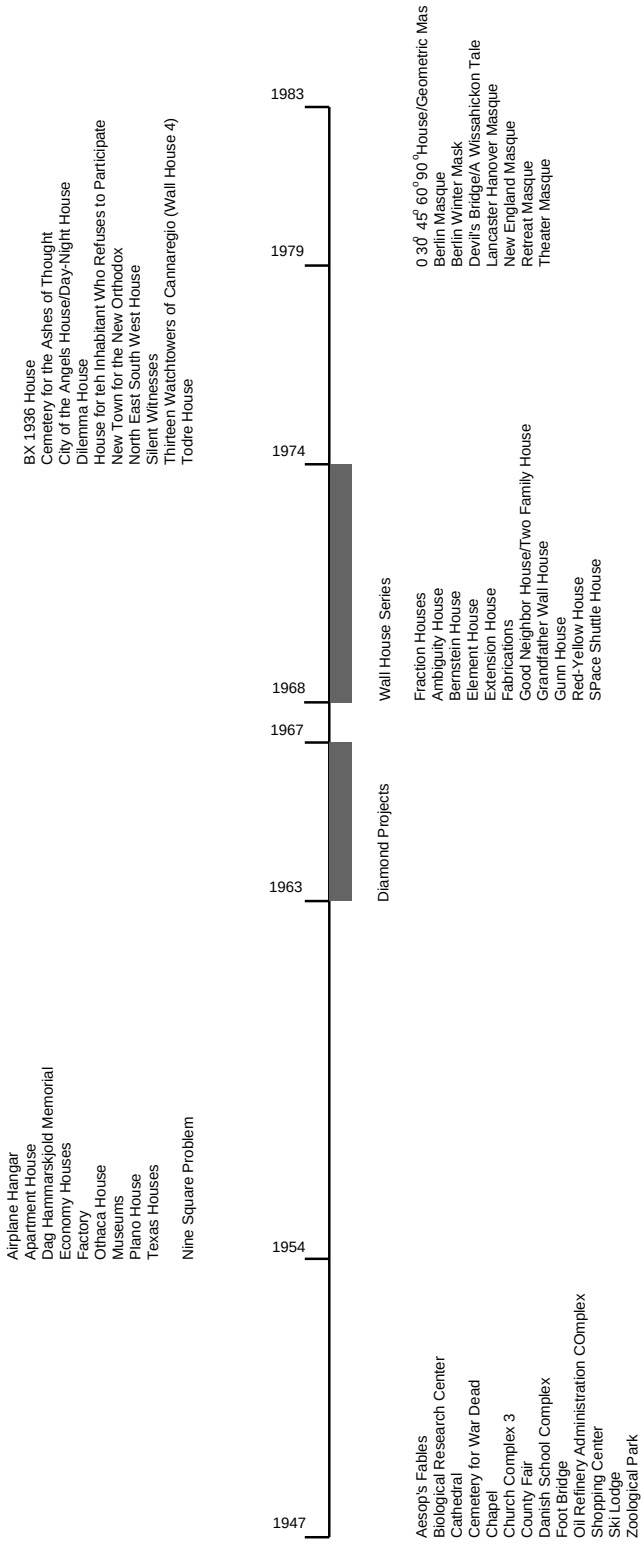


Figure 2. 45 A Timeline of Hejduk's Major Work (1947-1983**)**

CHAPTER 3
PAINTING: DESIGN MEANS AND DESIGN ENDS

Abstract

Painting is a literal compression of space. However, using painting as the departure point from which to design architectural space is more than merely introducing a third dimension to a two-dimensional picture plane, as it involves the manner in which a painting is read. Two questions arise: Is the painting read in terms of visual language that can be transferred to architectural language? Or, is the painting read in terms of a concept of space that is exemplified in the two-dimensional picture plane, leading to an understanding of certain attributes in the three-dimensional space? In the first case, the means of architectural design is defined and the end can be predicted by the means. In the second case, the end is defined while the mean is not.

This chapter will observe Hejduk's re-statement of painting in architecture. It will first analyze Hejduk's *Diamond Series* and Piet Mondrian's *Diamond Compositions* (1918-1944); then it will examine Hejduk's *Wall House Series* and both George Braque's *Studios* (1949 and 1956) and Jean Auguste Dominique Ingres' *Comtesse D'Haussonville* (1854). Hejduk himself specifically mentioned these paintings as inspiring his designs (Hejduk 1985, 48, 76).

The aim of this chapter is to illustrate how spatial concepts are formulated in the media of both painting and architecture. In this way, a work of painting or architecture becomes a conscious statement in each specific language. The underlying questions are how concepts

and percepts of space are constructed in painting and in architecture, and how concepts in paintings are articulated in architectural space with or without similar percepts between painting and architecture. Furthermore, the distinction between the intellectual aspect of space and the sensuous aspect of space will be made.

Considering painting and architecture side by side has the following implications. Most obviously, it leads to a multi-layered reading of painting. Any aspects of a painting, such as the composition of the shapes, the colors, or even corresponding narratives, may be introduced intentionally into the design of a work of architecture. Thus, paintings become a blueprint according to which an architect can create a design. However, the purpose of thinking across the media of painting and architecture is not to discover in how many ways a painting can be related to architecture. It raises at least three other major issues. First, architecture may be examined through the lens of a painting. By establishing an analogy between architecture and painting, the spatial ideas of architecture can be clarified. This is how Rowe and Sluzky's arguments of "transparency" are made. Second, the differences between the two media activate an awareness of specific meanings in the medium of architecture, leading to an understanding of the design end of the medium. For example, when Hejduk points out the flatness of space in Cubism and then designs a similar space, one must assume his previous reading of Cubist paintings.

A painting can be used as either a design means or a design end. By design ends, we refer to the properties or the attributes that a design possesses. By design means, we refer to the actual way in which a property or an attribute is exemplified or expressed in the design. For example, the following two ways of how an architectural design refers to a painting differ. One is to present an interesting interplay of shapes in a painting articulated as a similar interplay of visual elements in an architecture design. The other is to illustrate the feelings that arise from a painting and that are introduced into an architectural design. They differ in that the first case suggests not only "what" aspect of the painting will be represented but also "how" it will be represented it in the medium of architecture, while the second case indicates

only "what" but not the "how." In other words, in the first case, painting and architecture exemplify similar percepts, while in the second, painting and architecture express similar ideas in a metaphorical way. Thus, thinking across the media of painting and architecture explores the interplay between design means and design end. Thus, this constructive framework will be the lens through which our reading of Hejduk's architecture in relation to paintings will proceed.

Furthermore, the tension between the medium of painting and that of architecture brings forward the question of architectural reality.

> "There are many kinds of architectural realities and interpretations of those realities, which included the major issue of representation of re-presentation. Whatever the medium used – be it a pencil sketch on paper, a small-scale model, the building, a film of the built building, or a photograph of the above realities – a process is taking place."
>
> (Hejduk 1985, 68)

Different architectural realities indicate various aspects of an architectural space. A plan represents the composition and syntactic properties of a design and a model a three-dimensional structure. A photograph depicts a moment of spatial experience and a movie a continuum of spatial experience. A drawing may embody all of the above. Therefore, with regard to the relationship between architecture and other art forms, we need to choose certain aspects of architectural reality to study. In essence, this thesis explores this question by focusing on three aspects of a space, all of which capture its character: the design plan, individual views of the space, and a movie of the space. Whereas the plan relates more to

the logical understanding of a space, the latter two relate more to the experience within the space.

3.1 The Diamonds

Since a painting suggests both design means and design end, it records the aspects that will be intentionally registered in architecture. Therefore, painting functions as a notation of design in a certain way but not in a strict sense. At the same time, painting is a dense and replete system, so only a few aspects of the whole will be depicted in later designs. In this part, Mondrian's *Diamond Compositions* will be examined, followed by analyses of Hejduk's *Diamond Series*. It will answer the question of how the spatial statements are formulated in the medium of painting and then transferred to the medium of architecture.

3.1.1 Forces around the Lines: the *Diamond Composition* by Mondrian

There are sixteen known paintings in Mondrian's *Diamond Composition Series*. The names and corresponding years of the sixteen known paintings in the series follow (Figure 3.1) (Bax 2001):

1. Composition with Grey Lines, 1918
2. Composition in Black and Grey, 1919
3. Composition: Bright Color Planes with Grey Lines, 1919
4. Composition in Diamond Shape, 1919

5. Diagonal Composition, 1921
6. Diamond Painting in Red, Yellow and Blue, 1921-1925
7. Composition in a Square, 1925
8. Composition with Blue and Yellow, 1925
9. Composition with Blue, 1926
10. Painting I, 1926
11. Fox Trot A, 1930
12. Composition I-A, 1930
13. Composition with Two Lines, 1931
14. Composition with Two Yellow Lines, 1933
15. Composition in a Square with Red Corner, 1937-1938
16. Victory Boodie-Woogie, 1942-1944

On the Qualities of Mondrian's *Diamonds*

Numerous critics have provided insight into the spatial implications of the diamond canvasses, Traditionally, the style of diagonal lines found in the paintings of Theo van Doesburg are viewed as the decisive break with the style of Mondrian, a point of view that Hejduk takes. However, Carel Blotamp argues that the dominant style crucial in Mondrian is that of right angle but not the position of the diagonal line (Blotkamp 1995, 120). Earlier discussion provides evidence of his opposition to the introduction of non-45-degree diagonal lines, as in Peter Alma's and Theo van Doesburg's paintings. The reason is that non-45-degree diagonal lines produce the same spatial effects as those in a traditional

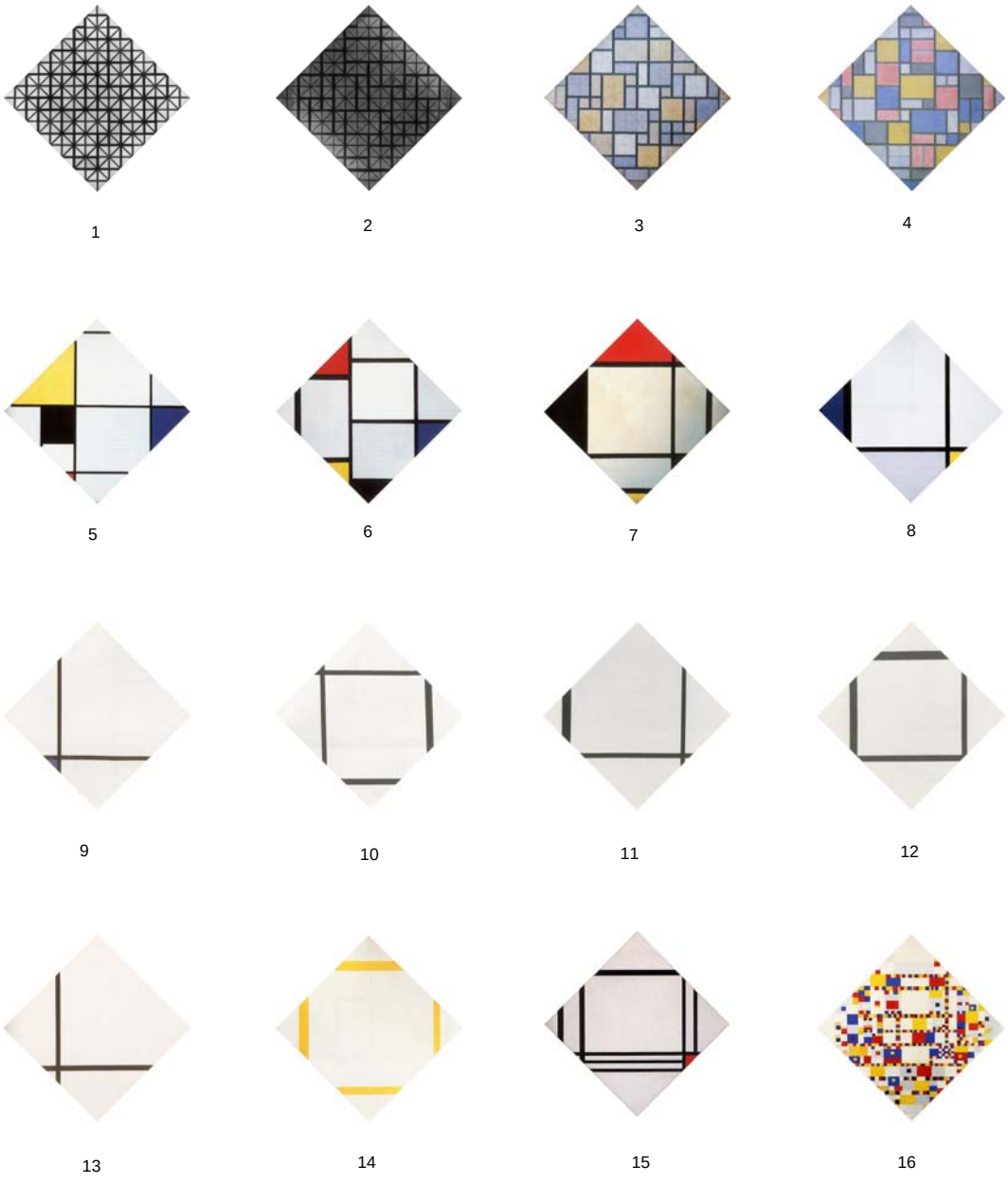


Figure 3. 1 The Diamond Composition by Piet Mondrian

perspective. "They suggested space *in* the picture plane, or depth, while the whole idea behind the new way of painting was to portray space *on* the plane." (Blotkamp 1995, 120) As for 45-degree diagonal lines in a diagonal position, Mondrian has no particular objections. He once writes, "It may be noted that in Neo-Plastic art the crucial thing is the right angle, that is, the right-angle lines, and not whether the position of the lines is vertical or horizontal." ((Blotkamp 1995, 192) Blotamp argues that among the first four, at least two of the *Diamond Compositions* were originally intended as normal squares with a diagonal composition. However, only a few weeks before the exhibition of these paintings in early February of 1919, Mondrian changed them to a diamond canvas. In a letter that Mondrian wrote to van Doesburg before the exhibition, he says, "I wanted to let you know that I am now hanging various things like this ◇; so that the composition looks like this +; whereas hung like this □ the composition looks like this ×." ((Blotkamp 1995, 122) The visual effects clearly involves rotation.

What does Mondrian see as a critical factor that distinguishes his diamond with horizontal and vertical composition and van Doesburg's square with diagonal composition? According to E. A. Carmean, Jr., the diamond foregrounds the edge condition:

> "For van Doesburg the diagonal was a means of adding vitality to his compositions. For Mondrian such vitality had to be stated within the dynamics of the horizontal and vertical structure; the edges of his diamonds are pictorially active as they cut across the composition and state the limits of the pictorial field."
>
> (Carmean 1979, 35)

Moreover, Carmean argues that the diamond composition suggests extensions to full shapes that pass the boundaries, demonstrating his argument in a diagrammatic square variation of No.5.

Kermit S. Champa sees the perpendicular relationship on the diamond canvas as a further step of abstraction:

> "The tipping of the square (never the unequal-sided rectangle, since that would introduce an exaggerated diagonal) has the marvelous and mysterious effect of removing the perpendicular relationship from an objectively normal and physical point of origin in the frame and representing it through an active optical dynamic generated from points only (corners and the center of the square). This relocated perpendicular relationship, since it is an optical proposition rather than a physically affirmable fact, is quite a bit more 'abstract' in Mondrian's terms, which is to say less conditioned by 'earthly' origins… As a shape the lozenge *floats*, while the rectangle *sits*…" (Champa 1985, 71)

According to Champa, Mondrian noted much later that the basic advantage of the partial rotation of the square was the provision of a horizontal and vertical dimension in the center of the image greater than that of any single side of the square. (Champa 1985, 69)

Besides the diamond shape of the canvas, the grid that structures the composition has drawn the attention of numerous scholars. E. A. Carmean Jr. was the first to study the *Diamond Compositions* as a union. In the book, *Mondrian: The Diamond Compositions* (1979), Carmean sees the grid and the treatment on the canvas edges in Mondrian's early four compositions as

evidence of a cubist connection, as the grids, which dominate the first three diamond compositions, reflect the cubist grid. The compositional fading occurs near the framing edges in the first three compositions, reflecting the cubist edges. However, Carmean believes that Mondrian's exploration parallels Cubism but is not necessarily influenced by Cubism.

In terms of structure, Carmean points out the evolution from an even grid to a division of a surface by lines. The first two compositions are described as having the "mechanical energy of the grid" (Carmean 1979, 23) that leads the viewer to focus "not on the lines, but on the intersections, seeing in effect eight-pointed starts." (Carmean 1979, 24) Starting from Composition No.5, the regularity of the grid is challenged in a way since linear elements "are placed by intuition, rather than conforming to an underlying, continuous grid. The system of spaces and planes the lines define and their own relationship to each other are felt to be self-structuring rather than deducible from an a priori pattern." (Carmean 1979, 30) Compared to the first four compositions, whose even and dense grids suggest a sense of surface, the latter compositions suggest "division of surface" (Carmean 1979, 33) because of the fewer lines in these compositions.

Existing literature provides fertile ground for discussion, on which this thesis will base an interrogation of the sixteen *Diamond Compositions* in a more systematic way, focusing on the compositional properties as well as their spatial implications. No evidence proves that what we see in Mondrian's *Diamond Compositions* is what Hejduk sees. However, compositional similarities between the rotation of the canvas in Mondrian's paintings and the rotation of the boundary of the space in Hejduk's *Diamond Series* are evident. Further, Hejduk's unique

take of Mondrian's paintings resides in the idea of flatness and is further embedded in his axonometric drawings, which will be examined in detail in the following chapters.

The Elements

Within the diamond periphery of the *Diamond Series*, lines and planes are the dominant compositional components. The first two diamond compositions consist of lines emerging from a grid. The third through the ninth compositions consist of lines enclosing colored areas and tending to play a more and more active role. No. 9 exhibits a turning point in the entire diamond series in that its colored area is the smallest of all the compositions. No. 9 records the moment when the role played by the lines dominate the role played by colored planes. This active role of the lines is further articulated in the compositions of Mondrian's paintings Nos. 10 through 15, where the lines do not serve to enclose the areas of colors. The statement of these diamond compositions lies in the stark opposition of horizontal and vertical. The width, the position, and the intersections of the lines gain importance. After 1926, Mondrian used only black and white to complete the diamond compositions. No. 13 echoes the constellation of lines of lines in No. 9, but all color has been deleted so that the lines make less of an impression on the enclosed areas. At the end of the series, the lines and the colored areas are defined in such a way that they reflect each other. In the composition of No. 14, the "lines" lend themselves to an interpretation of both lines and planes since they are so thick that they can almost be seen as planes. In No. 16, although there are no lines, they are tacit along the colored rectangles.

Most of the compositions consist of two patterns of intersection: intersection between lines and intersection between lines and the boundary of the painting. The intersections suggest a pattern of intervals and hence a pattern of dependency: one interval depends on the other. At the same time, there is indeed the play between lines and areas. The distinction between closure and enclosure is introduced, so the area completely surrounded by lines differs from the area partially surrounded by lines and partially touching the edge of the canvas. In Nos. 6 to 14, the complete enclosure disappears. Nos.5 and 15 both have one area that is fully enclosed. The interplay between closure and enclosure is punctuated by the coloring, which suggests two dimensionality and an interplay of figure-ground between the lines and the planes. The entire composition, both by virtue of having closure rather than enclosure, and by virtue of having the two kinds of intersection between lines and between lines and boundary, suggests openness, extension, the potential presence of other focal points, and other points of view.

Evolution of the Linear Scheme

The first appearance of the diamond-shape composition in Mondrian's paintings occurs in a series of four paintings based on a modular system of squares set within a tipped canvas. Among them, the first two *Diamond* compositions consist of grids. However, a closer look reveals differing line weights of the grids. Each work is divided diagonally into a grid pattern of eight units, forming sixty-four smaller diamonds. The diamond units are further divided by horizontal and vertical lines, as if the two orthogonal grids overlap. The third diamond composition, although filled with colored areas, is based on the same eight-by-eight

underlying grids. A comparison of the thick lines in the first two compositions reveals that they are surprisingly similar except for one line that is missing in composition No. 2. Another difference between these two compositions is that No. 2 has a stronger contrast in line weight than No. 1. However, No. 3 remains similar to No. 2 except for four missing lines. Composition No. 4 also consists of lines, the pattern of which is derived from partitioning the colored areas and deleting the existing lines in the third composition, but the square on the upper right-hand side is the only shape that remains the same (Figure 3.2).

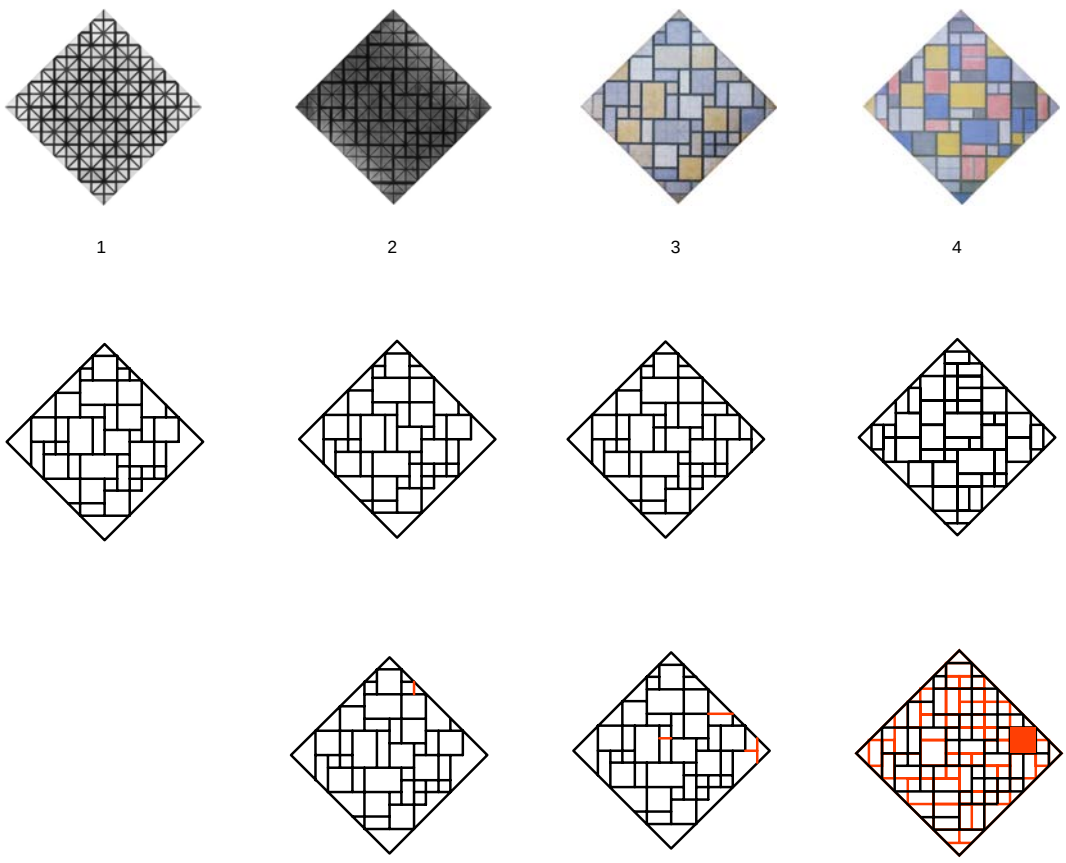


Figure 3. 2 The Evolution of Grid (a)

In Nos. 5 through 15, the linear language becomes more and more parsimonious, or in a zooming-in fashion of the previous four. For example, a part of composition No. 5 can be seen in the linear scheme shared by compositions Nos. 1 through 3 (Figure 3.3), which could be coincidental. The effect of zooming-in on a linear scheme is that some lines are more dominant in the structure than others, unlike in the first four compositions, in which segments of lines are of similar lengths. Inscribing a square inside the diamond boundary of the painting shows how the major lines are located in relation to the center of the diamond (Figure 3.4). Interestingly, the number of major lines progressively decreases. No. 5 has two lines, one horizontal and one vertical; No. 6 has only a vertical line; in No. 7, all the lines move toward the outside of the center square. In Nos. 5 through 8, the number of colored areas decreases. Not until one sees the compositions of the lines in Nos. 9 through 15 does he/she realize Mondrian's conscious play on the orthogonal structure within the diagonal periphery in a minimalistic manner. The last diagonal composition, *Victory Boodie-Woogie,* completely differs from the group of sixteen diamond compositions in which Mondrian was clearly trying out new ideas. However, his ideas were not fully realized, as he abandoned *Victory Boodie-Woogie* unfinished on his easel.

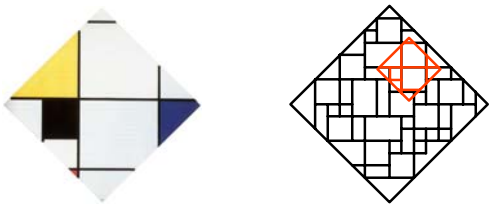


Figure 3. 3 The Evolutin of Grid (b)

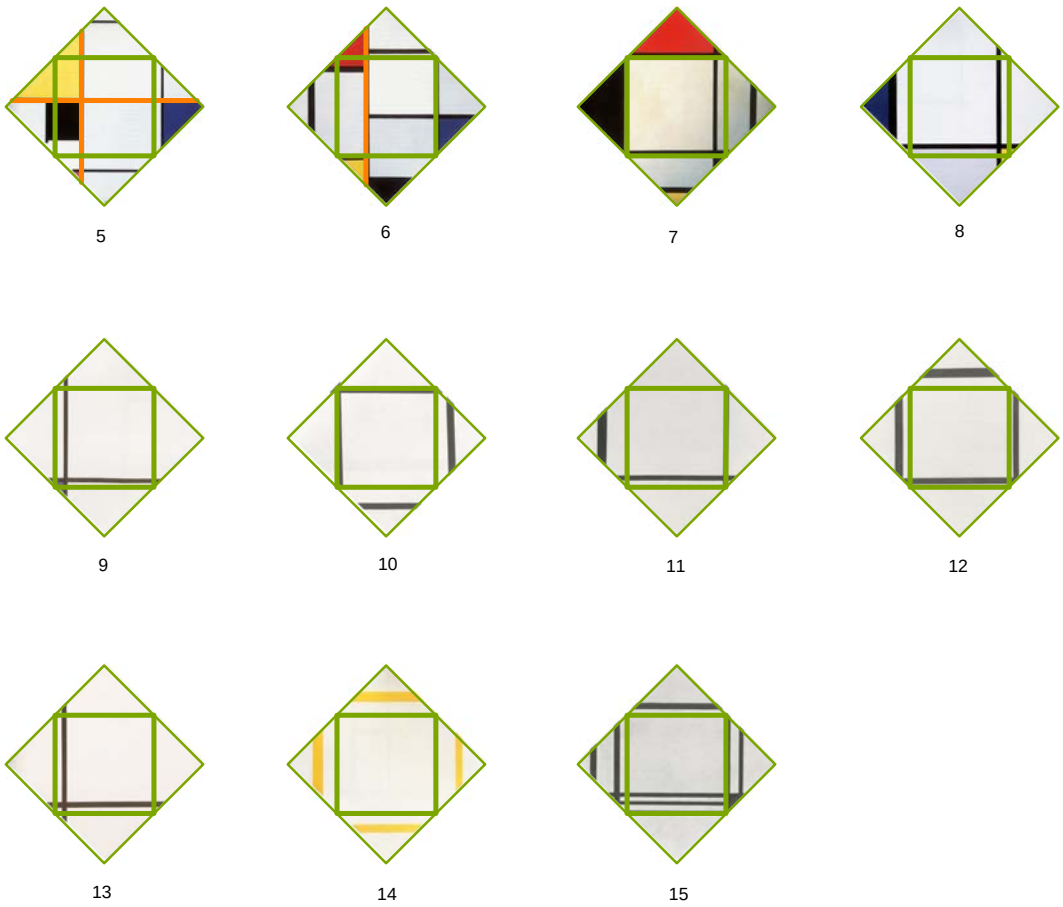


Figure 3. 4 The Center Area of the Compositional Lines

The Freedom of the Grid

In all cases, lines can be settled onto a grid. The first four compositions share the same grid, which derives itself from an eight-by-eight division of the diamond boundary. In No. 5, a grid can be retrieved from the line pattern in a much more complex way. One takes the edge length of the diamond canvas and divides it into fourteen equal segments, each of which becomes the unit of the grid. All lines, except for the longer edge of the black rectangle, lie in the grid. However, this offset line can be determined by measuring the same dimension

from a determined segment. (Figure 3.5) The drastic change between the grid of the earlier four compositions and the grid of No. 5 is not the change in the size of the grid unit but the relationship between the inner grid and the outside boundary (the canvas). As mentioned, the grid of the first four diamonds is generated by dissecting the boundary so that the grid and the boundary are inter-dependent. In the fifth composition, the relationship between the boundary and the grid is not as strict. It gives us an illusion that the lines of the compositions are determined first on a grid paper and then the diamond boundary is placed later on in order to crop the composition in an interesting way. If one fits the same grid onto Nos. 6 through.15, the boundary has three different locations (Figure 3.6). Nos.5, 9, and 13 share the same location. No. 7 defines its own location that can also be applied to Nos.12 and 14. The rest of the compositions, including Nos.12 and 14, share a third location of the boundary. Thus, Nos.12 and 14 are the two that fit two grids. Interestingly, these two shared grids bisect each other. In all three cases, the boundary is carefully shifted from the grid, which demonstrates the freedom of the boundary from the grid, or vice versa.

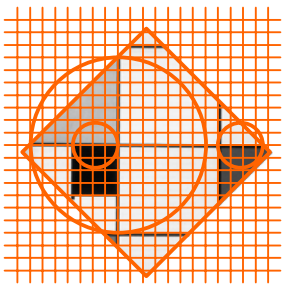


Figure 3. 5 A Possible Construction of No.5

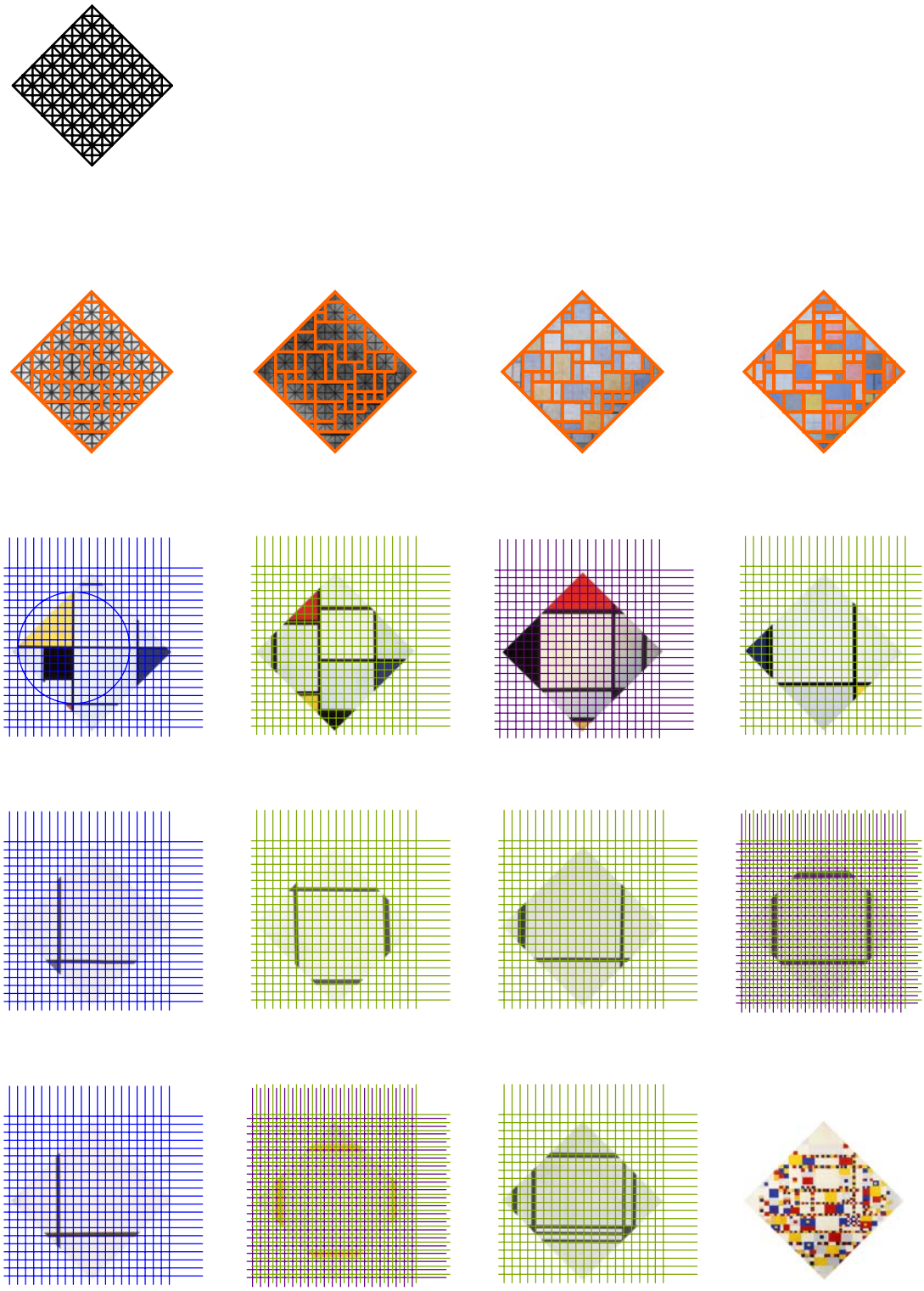


Figure 3. 6 The Freedom of the Grid

Rotation

The *Diamond Compositions* represents a radical change in the composition of painting in that the paintings strengthen the relationship between the boundary and what is inside the boundary. In a letter that Mondrian wrote to van Doesburg in early February 1919, he mentions the interesting visual effects that the diamond composition elicits. "I wanted to let you know that I am now hanging various things like this ◇; so that the composition looks like this +; whereas hung like this □ the composition looks like this ×." (Blotkamp 1994, 122) This idea of "changeability" is later carried on by other artists.[1] The *Diamond Compositions* illustrates rotation, which is overtly illustrated by the changeable visual effects. Furthermore, the spin-wheel structures are yet another level of rotation indicated by the structure of local elements in the first four *Diamond Compositions*. No.14, *Composition with Yellow Lines*, completed in 1933 is a radical restatement of the *Diamond Composition*. The four yellow lines suggest a square overlapping with the diamond-shaped picture plane. The square is almost the same size as the diamond itself, so the rotation between ◇ and □ is illustrated instead of the rotation between ◇ and +, or between □ and × (Figure 3.7).

Expansion

Not only does the diamond composition suggest a rotation between the inner grid and the outer boundary, but it also implies an extension from the inner grid towards the outside of

[1] For example, Cezar Domela exhibited a diamond-shaped painting in Brooklyn, 1926. The title of the painting is "Tableau Labile" indicating the possibility of an alternative orientation.

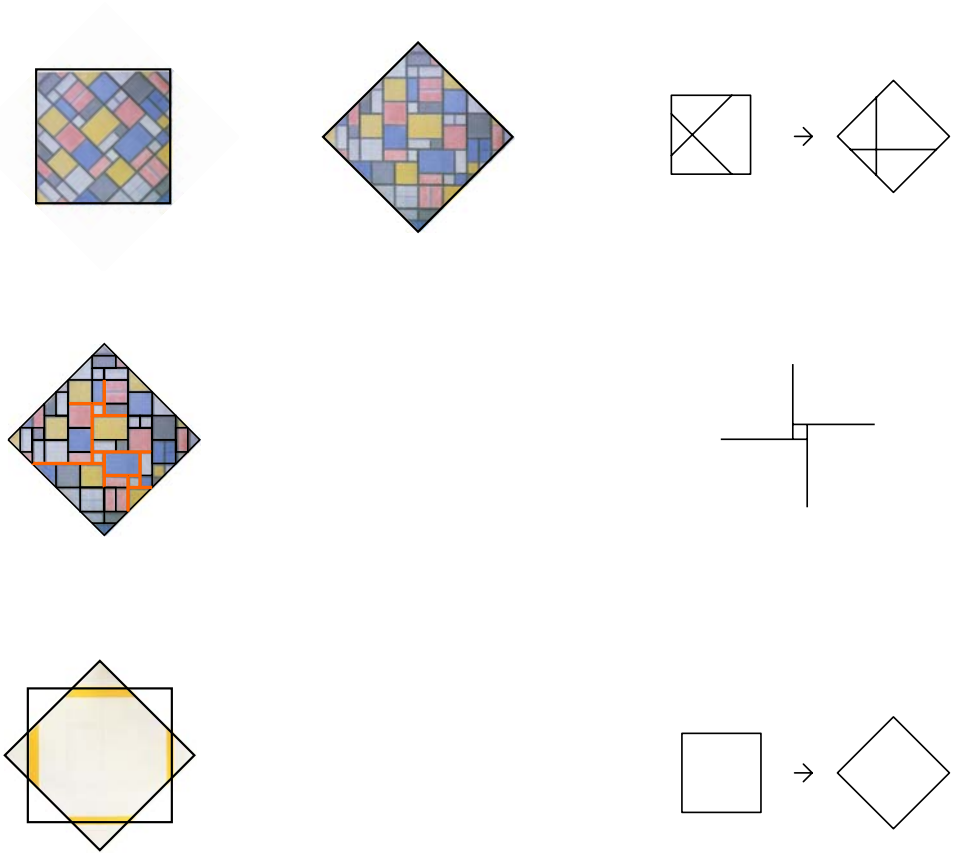


Figure 3. 7 Rotation

the boundary. Hejduk argues that by tipping the square boundary, "the formal ramifications of this action were shattering: the peripheric tensions of the edge and contours were heightened and the extension of field was implied beyond the canvas." (Hejduk 1985, 48) The irregular shapes always suggest complete ones that are cut off by the periphery of the diamond. The expansion is more obvious in compositions with a smaller number of lines. For example, in No. 5, the upper white area is in a very odd-shaped polygon with six unequal sides, suggesting that a rectangle has been cut off. Thus, the viewer of the painting not only sees the shapes within the diamond but also imagines the unseen parts that form another layer of the painting (Figure 3.8).

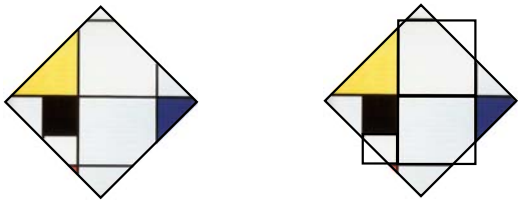


Figure 3. 8 Expansion

Challenge of Centrality

In compositions Nos. 7 to 15, all lines in the composition extend to the canvas edge as if they were trimmed to fit in the diamond boundary. Because of this attribute, each line is symmetrical about the axis of the diamond and thus defines a center. However, the entire composition of the lines is asymmetrical and the center is denied. Furthermore, with regard to Figure 3.4, we realize that these lines also avoid the central area defined by the inscribed square, as no line literally runs through the center of the canvas. No. 5 illustrates another layer of the challenge of centrality (Figure 3.9). The two dominant lines intersect to the left of the center of the diamond. Centered at this intersection, one can draw a circle whose diameter is equal to the length of the canvas edge. Both the yellow triangle and the black rectangle reinforce the center of this circle. Thus, two centers are formulated to challenge each other: the center naturally defined by the shape of the diamond canvas, and the center emerging in the constructed pattern of lines and colored areas. The off center and the center create the dynamics of the composition.

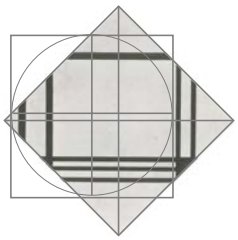


Figure 3. 9 Challenge of Centrality

Tension on the Periphery

Because of the rotation of the inner grid, the lines of the paintings are no longer parallel to the periphery. This non-perpendicular condition creates an unavoidable tension. One can trace how Mondrian experiments in his 16 paintings on his quest to explore this tension while the language of the *Diamond Compositions* evolves.

On various levels, Mondrian was conscious of the tension on the periphery of the diagonal composition. Details show that Mondrian was apparently cautious while deciding the treatment of the line heads as well as the framing strip. Beginning with the first *Diamond,* Mondrian set the framing strip back from the face of the canvas so that graphic power is assigned to the exposed edge. In composition No. 5, the color planes end at the edge while the black lines arrest where tangent. Except for the line heads adjacent to the blue triangle, the lines retain their rectangular heads while touching the periphery but do not extend completely to the edge. As we can see, the reason for the exception at the blue triangle is to enclose the colored area (Figure 3.10). From 1925-26, Mondrian's *Diamond Compositions* once again evolve. The lines no longer terminate before they reach the edge, as in the 1921

painting. In composition No. 8, the black lines cross the edge of the surface and continue down the sides, ending near the line of the setback framing strip. This distinguishes the line structure from the plane structure. In composition No. 9, this extension of the black structure is also present.

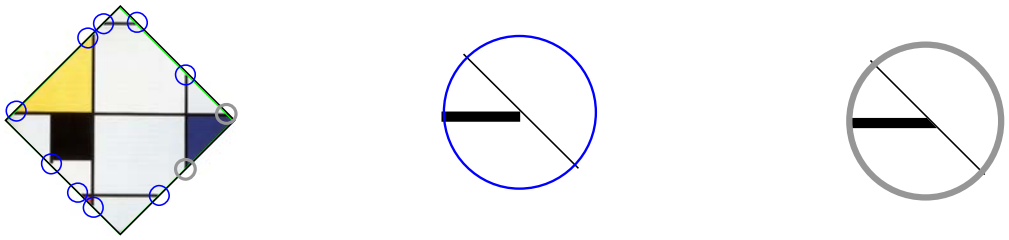


Figure 3. 10 Tension on the Periphery (a)

Structurally speaking, two extremes of the formation of tension on the periphery are illustrated in two distinct groups in the *Diamond Compositions*. One group consists of the first four compositions. The other consists of Nos. 8 through 14. The first group is characterized as having the largest number of lines and the second group the smallest. Because of the even distribution of segments of similar length, the first four paintings illustrate an increasing density of lines towards the center. As Figure 3.4 suggests, Nos. 8 through 14 feature compositions in which lines are located outside the center area.

To analyze these paintings, we use an analytical method, axial analysis. This method was originally used for urban structure analyses, developed by Bill Hillier, Julienne Hanson, John Peponis, and others. Hillier and Hanson's *The Social Logic of Space* (1984) contains the details

of axial analysis, the key measurement of which is integration value. Integration is a syntactic property. A simplified definition is that the more integrated a space is, the less total depth it requires to reach every other space of the structure. Therefore, this method is employed in the study to identify the syntactic relationships among the lines in Mondrian's *Diamond Compositions*. That is, the lines in Mondrian's compositions are viewed from the point of view of their pattern of intersection. In order to do so, however, several shifts must occur. First of all, axial analyses essentially register spatial relationships, and lines in an axial map summarize spaces. In our use of axial analysis, axial lines already exist in Mondrian's compositions, so a process of abstraction need not take place for the generation of the lines. Second, although the original purpose of axial analysis was to demonstrate the accessibility of spaces, in this study, the integration value is used to account for a 2D visual pattern. It is noted that, in Mondrian's compositions, integration is stressed in contrast to isolation on the diamond edge. Cognitively speaking, isolation is the role of the diamond edge since the edge "crops" the painting from a suggested larger area. Configurationally speaking, integration is the role of the diamond edge. As it is shown in Figure 3.11, when the diamond edge is not taken into consideration, the integration core resides in the center of the system. However, when the diamond edge is added to the system, it becomes the integration ring surrounding the system.

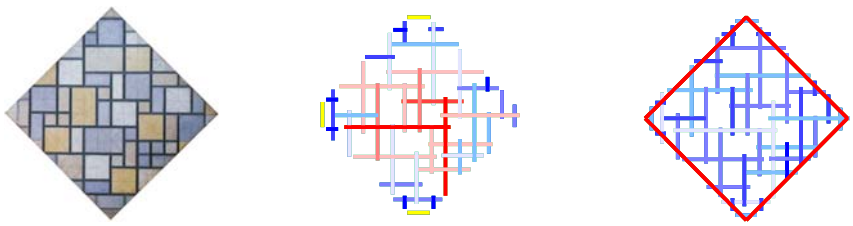


Figure 3. 11 Tension on the Periphery (b)

In compositions Nos. 8 through 14, because of the big scale of the each line, the tension on the periphery is always registered as the crucial condition of how each line, in relation to others, ends at the periphery. Since the number of lines is a maximum of four, four conditions are shown (Figure 3.12). *Condition 0* is when a line head has no perpendicular relationship with any other line heads. *Conditions 1, 2, and 3* are when a line head has a "neighbor" and the two "neighbors" belong to two perpendicular lines. Specifically, *Condition 1* is when the two lines do not intersect (or the extensions of the two lines intersect outside the periphery of the diamond shape). *Condition 2* is when the two lines intersect right on the periphery of the diamond shape. *Condition 3* is when the two lines intersect within the periphery of the diamond shape. With the intersections are all close to the periphery in Mondrian's compositions, they possess stronger graphic energy than they would if the intersections located closer to the center of the diamond. Based on the three conditions, permutation can be done for two, three, and four lines in a diamond composition, resulting in three possible cases for a two-line composition, six for a three-line composition, and eleven for a four-line composition. Among these possibilities, Mondrian tried one case for a two-line composition and a three-line composition and three cases for a four-line composition.

Thus, observation of his work reveals that Mondrian created the graphic tension on the periphery of the diamond in three ways: 1) details of treatments of the line heads; 2) integration of the lines; and 3) the relationship between line intersections and the periphery.

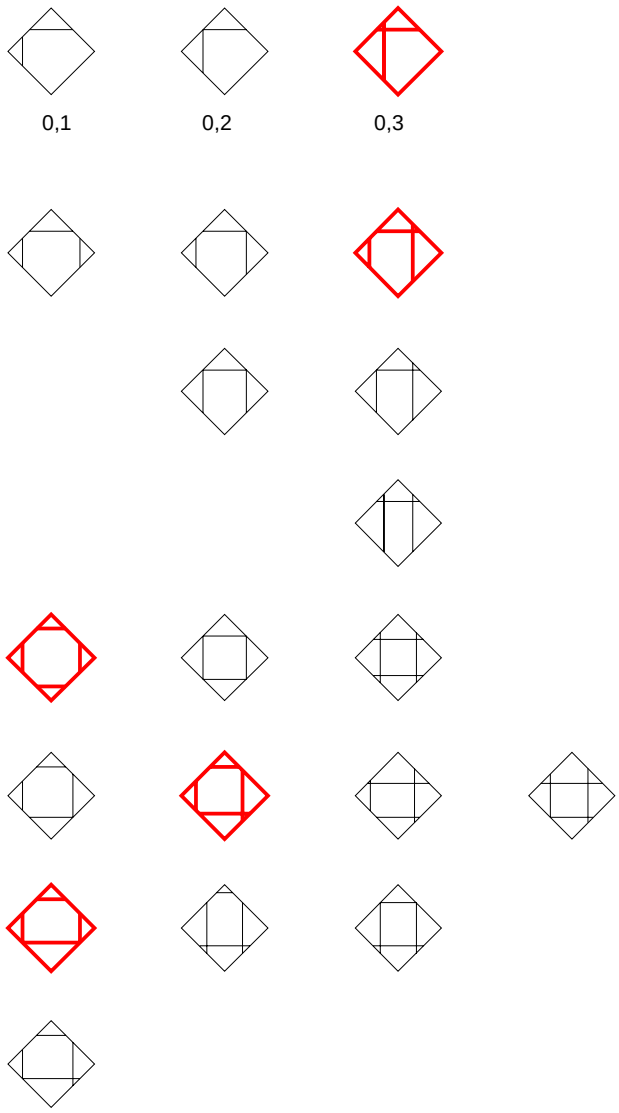


Figure 3. 12 Conditions on the Periphery

Illusion versus Logical Construction

As Mondrian's *Diamond Compositions* is composed of abstract paintings, space depicted in these paintings is not illusionary but conceptual. Illusionary space refers to visual effects of the paintings, which are approximated in perspective in paintings, generating illusory depth as if the viewer sees the physical space. Conceptual space denies such illusion, so the viewer does not receive similar percepts of the space. Instead, the viewer understands the space by seeing specific relationships among the objects, which in turn register concepts. To some extent, abstract paintings approach the idea of diagram more so than realistic paintings. The *Diamond Compositions* articulates geometric tension in pure form and pure color. The viewer perceives and understands the space from clarified angles in that the paintings are not literal depictions of the space, where intended attributes merge with unintended ones. On the contrary, they are exemplifications of attributes of space in the artist's specific language, which are normally so unusual that they call the attention of the viewer.

Flatness in the Diamond Configuration

On a syntactical level, the paintings have been shown to act as both a design means and a design end in the buildings. Now, this discussion will hypothesize that they also act as a design end on a conceptual level. A consistent issue in the exploration of and discussions among De Stijl painters has been that of flatness. Even during the formulation period of Mondrian's Diamond composition, flatness was at the center of many a debate: that of Bar van der Leck and Mondrian over the use of color fields with acute and obtuse angles by the

former; and that of Theo van Doesburg and Peter Alma over the diagonal lines of Alma's painting "that were not sufficiently counterbalanced within the composition." (Blotkamp 1994, 120) Let us revisit the reason for which both Mondrian and van Doesburg objected to the appearance of acute lines: this was because the lines produce spatial effects similar to those of perspective. "They (the lines)[2] suggested space *in* the picture plane, or depth, while the whole idea behind the new way of painting was to portray space *on* the plane." (Blotkamp 1994, 120) Thus, it appears as if flattening the space onto the surface of the canvas was the utmost goal. Mondrian's use of orthogonal lines in his diamond compositions was a way to counterbalance the forces of the painting. However, the rotation of the diamond boundary may imply another spatial layer to the rectangular ones, as rotation implies that the frame is sliding over a potentially extended grid. Regardless of the extent to which Mondrian's *Diamond Compositions* are flat, flatness was a dominant theme in his paintings. When flatness is both challenged and reinforced in his *Diamond Compositions*, it becomes a concept of the painting that extends beyond the mere means by which the painting was done.

3.1.2 Tension in Space: the *Diamond Series* by Hejduk

Hejduk's breakthrough, therefore, was the construction of his *Diamond Series* as an architectural interpretation of Mondrian. In Hejduk's own words, it provided "the admission of the diamond configuration into the family of architectural space generators." (Hejduk 1985, 49) Mondrian's paintings can be read as being visual compositions or as representing

[2] The lines in the parentheses are added by the author to clarify the contents.

the concept of flatness within the compositions. Hejduk's *Diamond Series* may reflect Mondrian's paintings in both ways. This chapter will analyze the compositional aspect of Mondrian's painting and Hejduk's Diamond Series, and Chapters 4 and 5 will analyze the concept of flatness depicted in the paintings and relate it to the concept of flatness in Hejduk's architectural drawings.

Let us examine how the visual attributes of Mondrian's *Diamond Compositions* are transmitted through the plans of Hejduk's *Diamond Series* and then evolve into spatial intentions. The compositions provide both the design means and the design end. The former embodies purely syntactic relationships while the latter incorporates not merely the effects of these relationships but also their abstraction into a concept.

Hejduk's *Diamond Series* is "a first attempt to invest the formal possibilities" (Hejduk 1985, 48) of Mondrian's *Diamond Compositions*, rotating the inner grid by 45 degrees within the square boundary, which destroys the consistency between the inner grid and the boundary. The tension exemplified in the *Diamond Compositions* is naturally inherited in Hejduk's architecture simply because of the adaptation of the diamond composition in plan. However, since the media of these two diamond compositions differ, the tension is achieved in different ways. Between 1963 and 1967, Hejduk designed three projects in the *Diamond Series*:

1. Diamond House A (Figure 3.13) (Hejduk 1985)
2. Diamond House B (Figure 3.14) (Hejduk 1985)
3. Diamond Museum C (Figure 3.15) (Hejduk 1985)

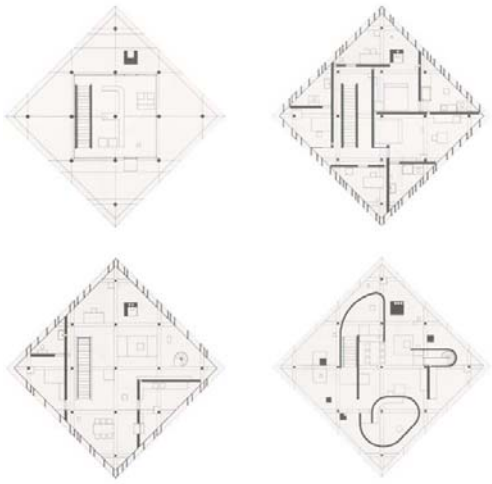


Figure 3. 13 Diamond House A

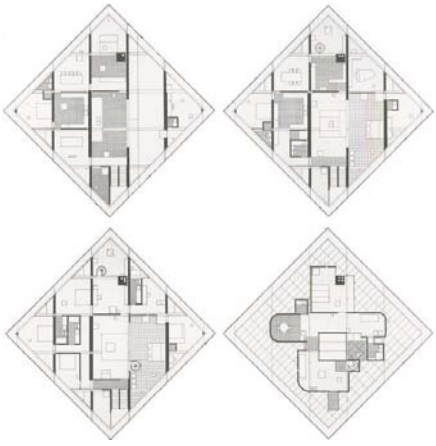
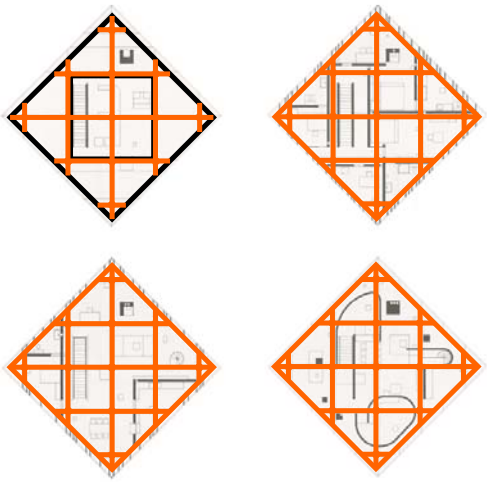


Figure 3. 14 Diamond House B

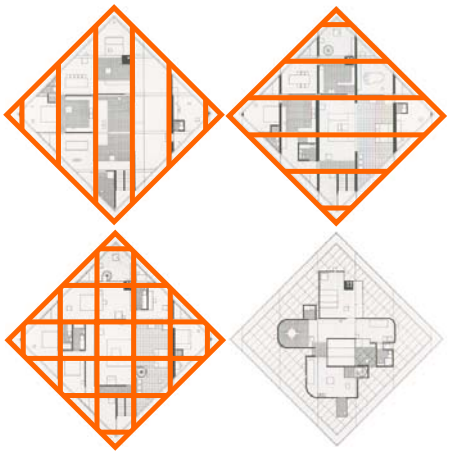
Figure 3. 15 Diamond Museum C

Grid and Rotation

Grid is adopted as a design means in Hejduk's *Diamond Series*. In *Diamond House A*, the grid is indicated by the column system. Interestingly enough, the column system suggests a square inscribed in another square at a 45-degree rotation (Figure 3.16a) (Hejduk 1985). Thus, the rotation of the diamond composition is not only shown between the grid and the periphery but also within the grid. In *Diamond House B*, the grid is embedded in the structural wall system and the floor pattern. Differentiated from the grid in Diamond House A, this grid indicates directions. In the floor plan, except for the fourth floor, the wall system falls in a south-north direction while the floor pattern falls in an east-west direction (Figure 3.16b) (Hejduk 1985). Moreover, the grid lines do not run through the corners of the diamond. In *Diamond Museum C*, the grids are more complex. The internal columns imply a four-by-four square grid (Figure 3.16c). The columnar peripheral elements create a dense series of thirteen layers in one direction. The beams suggest a sparser series, slicing the object in a perpendicular direction and picking up the column intervals. If the latter two patterns are superimposed, we can see from a perceptual point of view that Hejduk creates a tension between a neutral structural grid and the superimposed grids, whose effect is to differentiate the two diagonal directions. Regardless of how the grids in the various projects differ from each other, they are not free from the boundary of the plan. As previously mentioned, the grids of Mondrian's *Diamonds* can be divided into two categories: those that depend on the boundary (as shown in Nos.1 through 4) and those that are free from the boundary (as shown in Nos.5 through15). In this sense, the grids of Hejduk's work are more similar to those of Mondrian's first group of paintings.



a



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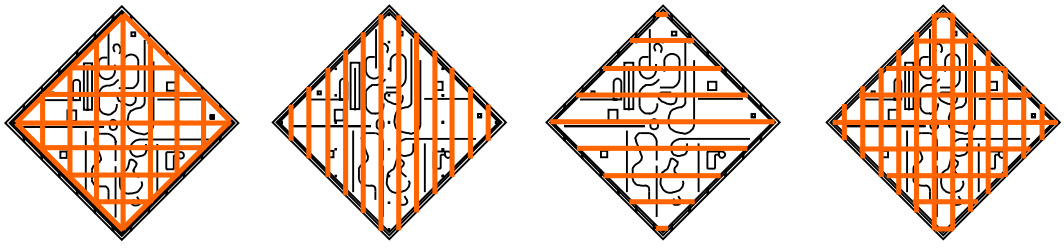


c

Figure 3. 16 Grid and Rotation in the Diamond Series

Tension

The tension related to the periphery appears to be a design end of Hejduk's Diamond Series. However, although the design means to reach the ends are not necessarily suggested in Mondrian's paintings, some of them are in Hejduk's work. In the case of *Diamond House A*, tension is expressed intensively in the columnar elements on the periphery. In fact, the locations of the mullions are extensions of the key points of the objects or wall ends within the diamond boundary (Figure 3.17) (Hejduk 1985). The inside is then registered on the periphery. However, this registration suggests a dominant orientation. The boundary of the diamond is somewhat transparent if viewed from the south-north direction while completely opaque if viewed from the east-west direction. The equal grid of the interior is set within an unequal boundary. Moreover, the details of the wall end as the periphery coincides with the direction shown in the columnar elements. In the east-west direction, the walls end in rectangular heads, similar to those in Mondrian's *Composition with Red, Yellow and Blue* of 1921. However, in the south-north direction, the walls extend until they reach the periphery completely, leaving triangular heads, similar to those in Mondrian's later compositions. In other words, tension between the center and the periphery is generated within the contrast between the equality and the dominance of the planar directions.

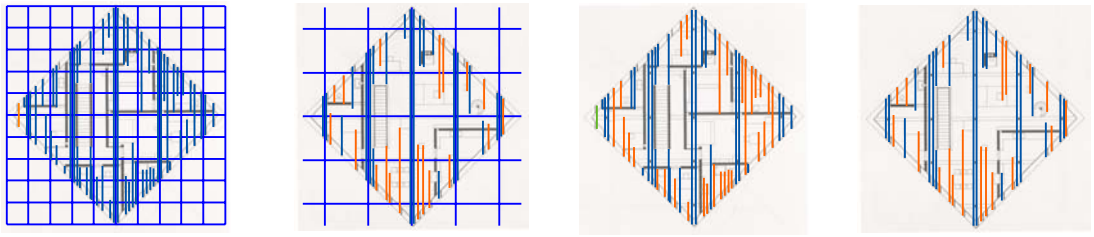
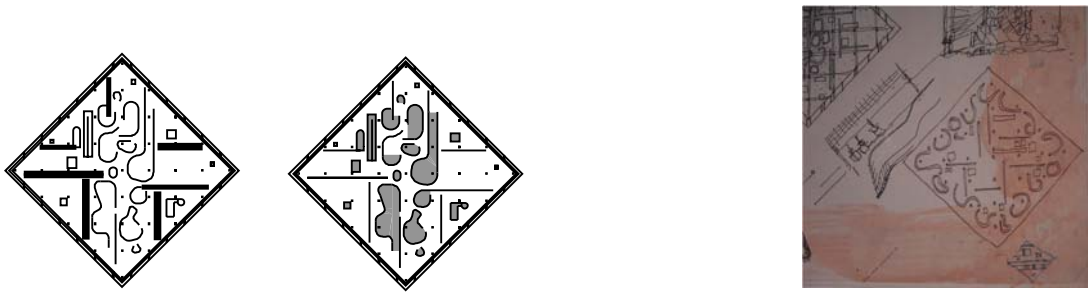


Figure 3. 17 Tension

Diamond House B, a simpler version of House A, also indicates tension by suggesting one dominant direction on the supposedly equal diamond periphery. The structural wall system already shows the direction, an extension of what happens on the periphery.

In Diamond Museum C, the tension between the center and the periphery involves different kinds of wall elements rather than mere changes in their arrangement. However, most of these design means are not found in Mondrian's paintings. Hejduk's design has two kinds of wall elements: free-standing walls offset from all major grids in the manner of Mies (Figure 3.18a – thickest lines) and those that extend into curvilinear enclosures (Figure 3.18a – medium lines); and curvilinear walls that define enclosures. The latter, which appear as objects placed in a spatial field (Figure 3.18b), are unlike the paintings by Mondrian in that they stand unambiguously as figures and do not replicate the underlying square shape or a shape derived from it. Thus, they raise a question as to their formal logic and whether we can reconstruct it in a manner that makes sense of the relationship between painting and plan. A sketch of the Diamond Museum by Hejduk shows a different arrangement of the elements; however, the idea of distinguishing the center from the periphery remains the same (Figure 3. 18c) (Photographed from the Canadian Center for Architecture).



a b c

Figure 3. 18 Elements in the Diamond Museum

Freestanding walls are simple boundaries which, from a topological point of view, divide space without defining the interior or exterior. Likewise, curvilinear walls have the potential to generate a distinction between the interior and exterior, depending on whether they define convex or concave regions in their neighborhood. As curvilinear walls form enclosures, irregular regions of space are defined between them, especially at the center of the composition. An observer occupying these regions would perceive him or herself as standing outside the surrounding objects and also between them, with no other frame of reference or orientation than the unfolding of surrounding curves. This is picked up by the isovist drawn in figure 3.19. As the observer moves outwards, the outer perimeter becomes visible, first in small part and thereafter quite substantially (Figure 3.19). As the observer gets closer to the perimeter, the visual integrity of the outer shape is revealed. Thus, Hejduk's plan takes subjects across, inside, and between boundaries while at the same time engendering a tension between a regular outer boundary to which a peripheral ring of space is attached and an internal irregular region meandering between the curvilinear objects. The integration structure of the plan balances these two poles: while the outer ring of spaces has the highest

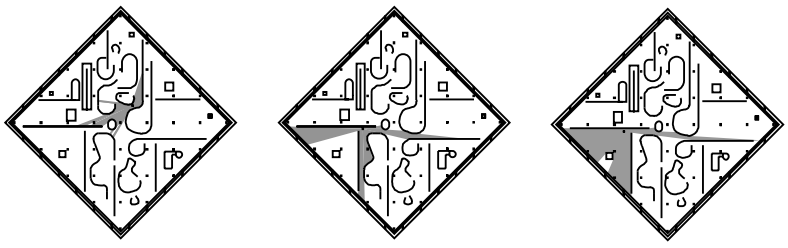


Figure 3. 19 Visual Fields in the Diamond Museum

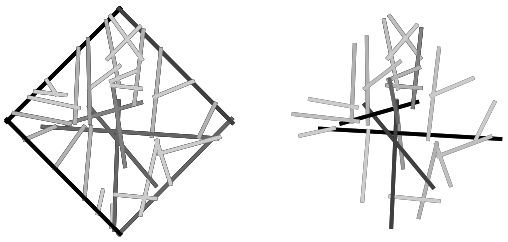


Figure 3. 20 Axial Analyses of the Diamond Museum

integration, some strongly integrating lines penetrate the center and almost traverse the plan in two directions; of course, if the perimeter is eliminated, the core firmly radiates from a position offset from the geometrical center of the plan (Figure 3.20). Overall, the balance between interior and peripheral integration is better maintained in Hejduk's designs than in Mondrian's painting.

3.2 The Vertical Surface

The language of Braque's and Ingres' paintings differs from that of Mondrian's in the sense that they cannot be reduced to fundamental elements such as straight lines. Braque's *Studio Series* has distorted figures while Ingres' *Comtesse D'Haussonville* is purely a figurative portrait. Thus, the analysis of these paintings will take the step of abstraction to a much higher level than it did with Mondrian's paintings, and then explore how spatial ideas are exemplified through the interplay of figures.

3.2.1 The Flattened Space around the Bird: *Studios* by Braque

In 1949 Braque began his series of *Studios*. For nearly eight years, he worked on eight large canvases, which, in his words, was an exploration of space. The eight paintings and the year each was painted follow (Figure 3.21) (Golding 1997). Because Braque was always working on several paintings at one time, their names are often confusing, such as those of *Studios III, IV,* and *V*, all painted in 1949. This thesis will adopt the names found in Golding's *Braque: The Late Works* (1997).

1. *Studio I*, 1949
2. *Studio II*, 1949
3. *Studio III* (Also known as *IV* and *V*), 1949-1950
4. *Studio IV*, 1949
5. *Studio V* (Also known as *Studio III*), 1949-1951
6. *Studio VI*, 1950-1951
7. *Studio VIII*, 1954-1955
8. *Studio IX* (revised entirely from *Studio VII*), 1952-1956

Two aspects of this series closely relate to the current research. One is the appearance of space and the other the appearance of the bird, the former depicted by the latter.

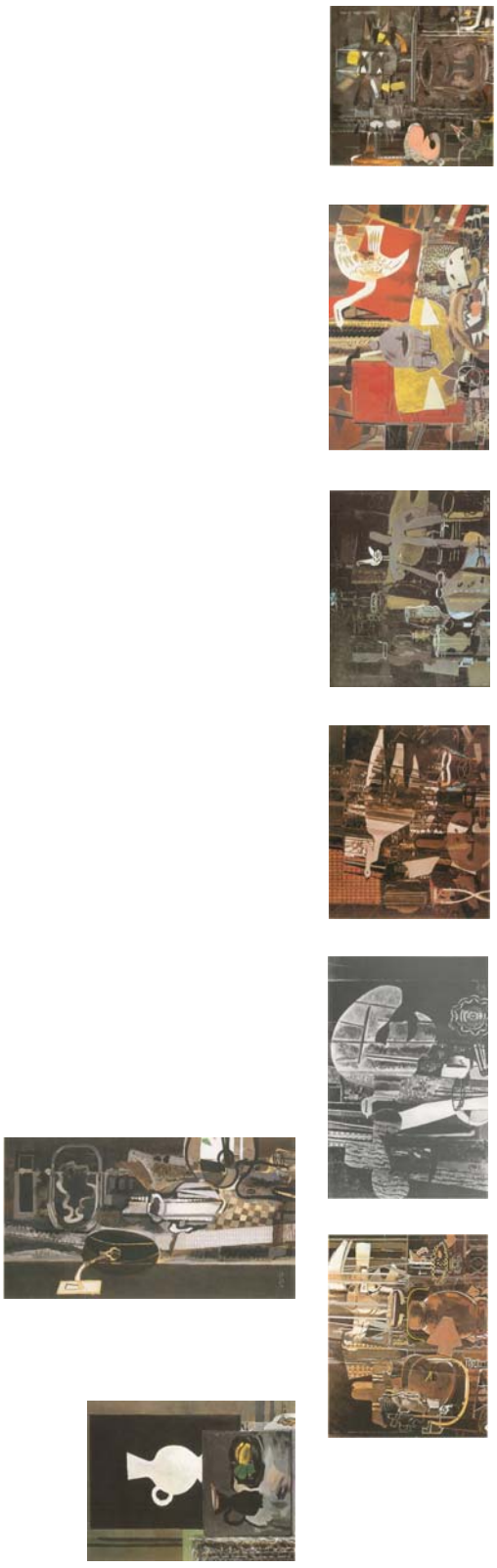


Figure 3. 21 The Studio Series by George Braque

The Ambiguity of the Flattened Space

Braque constructed flatness of space in *Studios,* but still left ambiguous depth. Except for *Studio III,* which vaguely shows the third dimension of depth (Figure 3.22) (Golding 1997), all the other *Studios* are frontal projections. The elimination of the third dimension naturally decreases the articulation of depth. However, the figures are not pinned to the same two-dimensional plane. Instead, since the figural shapes themselves do not have much depth, they indicate parallel slices of space parallel to the picture plane. Furthermore, the depths of the slices are ambiguous. For the shapes that overlap, the viewer will undeniably perceive that one of these shapes is closer. Shapes that do not overlap still give a vague suggestion of depth by their relative sizes. For example, in *Studio VI*, the size of a palette is almost half the size of an easel, suggesting that the former is closer to the viewer than the latter. Even when the shapes are relatively the same size, the location of the shapes may still indicate depth since the viewer is accustomed to regarding images in a lower position as closer than those in an upper position. For example, in the case of *Studio V*, although the palette, the bird, and the pot are isolated shapes, the palette appears to be the closest object to the viewer because it is in a lower position than the others. This phenomenon can be explained through the

Figure 3. 22 The Ambiguity of Space

conventional perspective of the ground. The closer the object is, the lower its position in a perceptive drawing. Thus, the frontal projection in Braque's *Studios* not only compresses the third dimension in a literal sense but also introduces the ambiguous perception of the third dimension. Thus, the flatness of space in Braque's *Studios* is charged with tension.

Spatial Implications of the Bird

Braque introduces the figure of a bird in all but two (*Studio I and Studio III)* of the eight works in the *Studio Series*. Although the theme of the bird is common in the *Studio* series, what caught Braque's interest in the early fifties was the winged being, the master of space. In an interview, Braque looked at the history of his relationships to the theme, stating that "it was in 1929 that this motif appeared to me for an illustration of Hesiod. In 1910 I had painted birds, but they were incorporated in still lives, whereas in my latest things I have been haunted by space and movement." (Fauchereau 1987, 29) In 1958, Braque wrote to Jean Leymarie about his long time fascination with birds and the space implications of their flight. In a way, the introduction of the bird is a symbolic move in that the bird has the free body in space. It is the most complete antithesis possible of the static, closed, well-considered world of the artist's studio. These implications are associated with the image of birds regardless of how they are depicted in the painting. Braque commented, "All my life, my great preoccupation has been the painting of space and, by its very nature, a bird in flight conjures up and animates the space element and somehow makes it more real." (Golding, et. al.1997, 74) However, it is important to note that "how" the birds are shown in the paintings reveals Braque's idea of space. In Braque's poignant words, "My series of Studio paintings

continues to obsess me, these paintings of interiors represented a tremendous immersion in myself… The objects faded away, leaving me with the imprint, the echo of their poetic relationships." (Verdet 1978, 24)

Thus, the bird has two implications of space. On the one hand, its appearance is itself a challenge of flattened space in that the freedom of a flying bird is always associated with full dimensions of space. Thus, the movement of a bird suggests spatial tension. On the other hand, the live body of the bird that registers the sensation of space while one paints the sensation of space was always Braque's aim. In turn, the character of space is exemplified through the bird, and space depicted through the bird.

First, the constrained motion of the bird reinforces the flatness of the space. Since the depth of the picture plane is flattened, the motion of the bird is forced to follow the direction along the picture plane. In other words, the bird can fly only in the left-right direction instead of moving towards or away from the viewer. Thus, the space is compressed in one dimension but elaborated in the other two (there are always three).

Second, the space around a flying bird is not fluid any more. In the *Studios*, space has a different appearance with pleats. In Studios *II*, *IV,* and *V*, the tilted vertical lines consistently occur with the flying bird. These lines give spatial marks not only to the continuous movement of the bird but also to the continuous space. On the one hand, the lines indicate temporal thresholds. The bird's flying is thus registered in distinct moments. On the other hand, the structure of the space is also challenged by these definite marks. The fluidity of

space is replaced by the segments of space. Thus, Braque described these *Studio* paintings as "arriving at a temperature which renders things malleable." (Golding, et. al.1997, 9)

The Tactile Space in the Conditions of the Bird

Braque chose to stay in the studio and paint the still life for this series. After all, he believed that "In a still life space is tactile, even manual, while the space of a landscape is a visual space." (Golding, et. al.1997, 14) He may have been referring to the distance between the viewer and the scene. As a still life appears closer, it seems possible for the viewer to touch it, but a landscape appears to be farther away, so it is only possible to see. Regardless of the reason or meaning of his statement, in Braque's *Studios,* space is clearly meant to be tactile and not merely visual.

The spatial relationship between the bird and its surroundings, the appearance of the bird, and the co-existence of the bird and other figures in the paintings is intriguing. A bird is normally not a subject in a studio in that it flies and cannot stay in one place unless it is dead. The introduction of the specific subject, the bird, to the studio is in fact the introduction of an intrusion, a physical intrusion of a bird into the studio setting or an intrusion of a dream into the reality of the studio. Because of the abnormal condition of intrusion, the appearance of the bird (how the bird intrudes on the space) becomes important. In a way, the viewer feels the space through the conditions of the bird's body. (Figure 3.23) (Golding 1997)

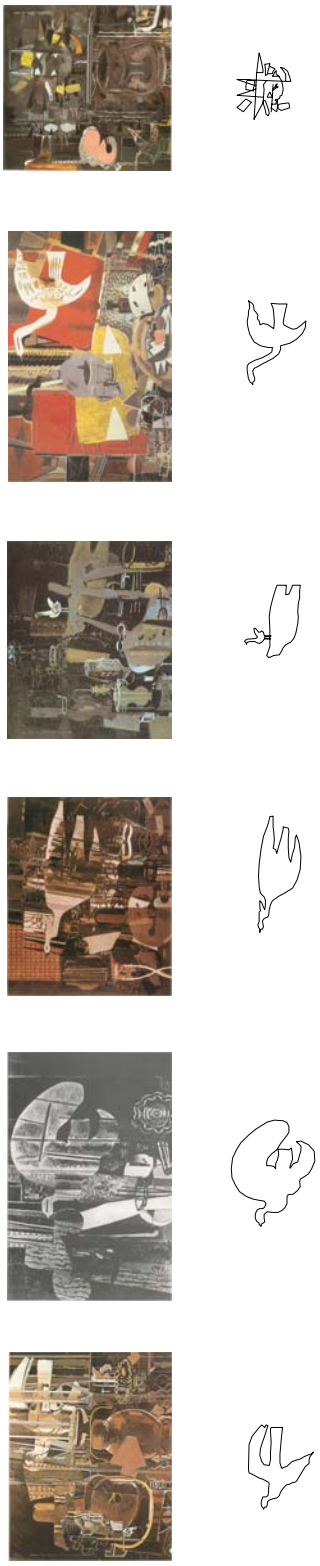


Figure 3. 23 The Ambiguity of Figure

In *Studio II*, the bird is definitely flying against the dominant vertical lines of the pleated space. If the beating of the birds' wings stirs space, rendering it tangible, it is still because of a visual illusion that connects with our tactile sensation. What Braque did is to put the bird's motion in contrast with tilted vertical lines that we do not actually see in reality. In a way, these lines could be the folds of air stirred by the bird's wings. In another way, these lines set up boundaries for the bird to mesh into and mesh through. The pushing forward of the bird's movement and the resistance of the boundaries create tension. It is still the case that one sees as if one feels. However, one sees more than an illusion; he sees a structure of sensation. In addition, in order to foreground the tactile, Braque even muted the visual because color may have disturbed the spatial sensations he was seeking.
(Golding, et. al.1997, 8)

Other elements in *Studio II* strengthen the opposite force against the bird's flying. The statue of the woman's head faces the bird as if she sees the bird smashing into her. The arrow, which is an obviously foreign shape in the composition, points toward the tail of the bird, staged in such a way that its movement is rendered in a directional contrast with its surroundings. However, the motion becomes more obvious and vivid because of these counter forces.

In *Studio IV*, although vertical lines still suggest flight, the bird is more settled by the vertical lines. The shape of the bird, which resonates in the shape of the palette, does not indicate speed but rather a settled status. The surrounding objects—the easel, the jar and the circular pattern—are all symmetrical in shape, which provides a neutral environment of the bird's flying.

In *Studio V*, the strong indication of direction is absent. The middle of the bird merges with the background, and the shape of the bird is elongated as if it is stretching forward from being caught by the static background. In this bird, one sees effort rather than speed. In fact, one even doubts if the bird has achieved any flying speed or if it is simply trying to move.

Studio VI features two birds, a small white one standing on the easel and a brown headless one lying in the background. The standing bird tranquilizes the space as the struggle of flying disappears in the dead body. The direction of the face of the statue loses its force because its counterpart has disappeared. Instead, the face stares at the still space.

In *Studio VIII*, the shape of the bird is so effortless that its motion is doubtful. One sees the bird as an inanimate object such as a jar or a statue in a still life setting rather than an intrusion on the setting. *Studio VIIII* shows a transformation of the bird from its organic form into a geometric one. A struggle, suggested by the stiff neck of the bird, is still taking place. The transformation is drastic, as if the bird has crashed into geometric fragments.

Based on the above observation, the spatial force is registered in the conditions of the bird's motion. Although the *Studios* are not legible for a sequential reading (since Braque painted some of them simultaneously), at least we read the struggle of the bird in different conditions: a bird flying cross the boundaries with extreme energy, a bird flying but at the same time projected on the palette, a bird trying to separate itself from the background, a dead bird, a standing bird, and a shattered bird. The conditions of the last three birds emerge

from the actual status of the bird while the conditions of the first three emerge from the bird's relationship with its surroundings besides its own status of motion.

In the first place, a painting is visual. The rendering of texture, color, and light causes a change from seeing to illusionary touching. However, this is not how tactile sensation is rendered in Braque's *Studios,* as all of the figures are not realistic. Instead, the space is felt in the conditions of the bird, which are depicted in a manner that is between symbolic and illusionary. For example, the tilted vertical lines may be viewed as either symbols that mark the thresholds of the space or waves in the space that one might imagine.

How is a condition generated in these paintings? Condition involves abstract attributes such as direction, forces of shapes, figure-ground relationships, as well as representational attributes, such as the flying status, the standing status, or the dead status of a bird. Condition cannot be determined by geometric analysis. Instead, condition is determined by a direct challenge of the body. In the case of the *Studios,* condition is the challenge of the bird's body. In most cases, a condition is charged by its unusualness since usualness alerts one's senses and attention. Furthermore, a condition is not only about the subject but also about the surroundings, which challenges the subject. It is the surroundings that charge the subject with a stronger condition.

Hejduk's Reading of Braque

Just as the theme of a flying bird crashing into a piece of wall has been repeated in Braque's paintings, the theme of a black bird has been repeated by Hejduk in his sketches and poems. In publications, Hejduk mentioned Braque's flying bird three times. One was in *Adjusting Foundations*, published in 1995, when he talks about life and death as the program of his *Still Life Series*.

> "In Braque's painting Studio III (1949), (In our naming system, it is Studio V also known as Studio III.) the bird of death flies through the wallpaper of a room. The bird is caught within the wallpaper's pattern on the wall. It is caught in the patterns of many layers of peeled wallpapers, oblivious to the death entanglement of the surfaces. In his Studio II (1949), the bird is observed by a man's head or even perhaps a cast head – we are not sure. The bird is agitated and can be seen as moving into and parallel to a window about to be entwined in the wallpaper of the room. Another viewing of the painting could be that the former head of the painter, instead of being on the pewter platter of Salomé, is placed on the wood palette of the painter. In any case, the bird in the paintings desires entry into the room to be finally enmeshed, as a shark is enmeshed in an undersea net. The painter attempts to capture death, or at least a fleeting thought."
>
> (Hejduk 1995, 48)

Another mention of the bird occurs in the poem, *Nature Morte*, when he describes the moment of the painter's death. We will discuss this poem in detail in Chapter 6.

The other one, which is also the case most relevant to the design of the *Wall Houses*, is in *Pewter Wings, Golden Horns, Stone* Veils, a series of diagrams of the flying bird published in 1997 (Figure 3.24). Although the book was published in this year, the sketches are not dated. Residing in a folder of miscellaneous sketches in the Canadian Center for Architecture, they resemble the structure of the *Wall Houses* to such a degree that one suspects that the houses could be a three-dimensional realization of these diagrams.

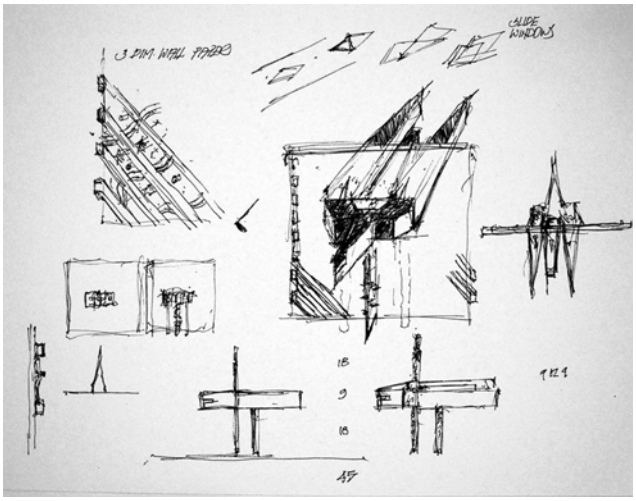


Figure 3. 24 Hejduk's Sketch of the Flying Bird

Otherness in Ingres' *Madame D'Haussonville*

Hejduk also seemed acutely aware of the opacity of the mirror and strangeness of the body of Madame D'Haussonville in Jean-Auguste-Dominique Ingres' *Comtesse D'Haussonville* (Figure 3.25), painted in 1845, saying

"Isn't that strange? Look at the mirror – there's no reflectivity. It's absolutely opaque.

It's impossible. And that arm… cannot belong to that person. I mean, the hand is the size of the face, It's all disjointed, all the parts are separated. It's Cubism, 60 years before Cubism. There's no depth, right? No perspective. This painting is in my work – in the wall Houses. The separation of the elements, the opacity of the wall, the lack of depth… it's a very important work for me."

(Hejduk 1985, 76)

Figure 3. 25 Comtesse D'Haussonville by Jean-Auguste-Dominique Ingres

Literally, the lack of depth and the opacity of the material of the mirror in *Madame d'Haussonville* impressed Hejduk. Intellectually, it is the otherness, arising from the abnormal senses, that drew his attention. Hejduk regards otherness as the attribute of being inexplicable. (Hejduk 1985, 53) On a superficial level, otherness derives from opacity. The inability to see clearly alerts the viewer that something else might be going on. In this way, the opaque mirror in the painting suggests otherness. On a deeper level, otherness derives

from the relationships among seemingly normal objects, which appear benign, not because of mysterious semantic associations, but because the spatial relationship between the arm and the body is strange. As Donald Wall said, when discussing a similar subject with Hejduk, "if the malignancy doesn't lie in the parts, then it must reside in the way the parts are being assembled." (Hejduk 1985, 52) We categorize otherness as a sentiment or awareness of something "else" is happening. Hejduk also wrote a poem on *Madame d'Haussonville*. The poem and the sentiment of otherness will be further interrogated in Chapter 6.

3.2.2 The Flying Bird in the *Wall Houses*

Compared to Mondrian's paintings, Braque's and Ingres' paintings suggest a strong sensuality. Although the figures in the *Studios* are distorted, the condition of the bird in each one is still vivid, and the contrast between the organic and geometric forms accentuates the sensuous aspects. The undetermined curves of the objects, the thickness and darkness of the color and the vague definition of the light generate a haptic experience of the paintings for the viewer rather than a mere consideration of the ideas in the paintings. In *Comtesse D'Haussonville*, the unusual depiction of the materiality as well as its violation of reasonable body structure impel the viewer to relate the painting to his or her own body. Hejduk's reading of these paintings shows a deep sympathy of the sensuality, which is further articulated as the sentiment of otherness. Following a similar scenario as the previous discussion on Mondrian's paintings, we will leave the examination on the notion of otherness in relation to Hejduk's poetry later, in Chapter 6 and 7, while proceed a

preliminary examination of the sensual aspect of the Wall House 2 in relation to the paintings in the current chapter.

Braque's still life paintings have fundamental influences on Hejduk's Wall Houses and variations of Wall Houses. The design of the wall house conjoins two motifs, sharp discontinuity across a boundary, and an interest in the particular moment when a boundary is being crossed, as when a bird flies through the wall in a painting by Braque, *Studio V (*also known as *Studio III)*, that Hejduk often mentions in his work. The paintings define a state in the narrative of a bird flying into a piece of wall. What Hejduk does is to articulate in his designs the state of crossing. Being different from the Diamond Series, Hejduk had to introduce his own design language to realize the flying bird without literally constructing a bird, whereas in the Diamond Series, the language is taken from the paintings and evolves later on.

The architectural element, the wall, becomes the solution. All three *Wall Houses* are built around a major wall. On the one hand, the wall is the element of separation suggesting a strong sense of front and back. Hejduk writes:

> "On one side of the wall (the past), the circulatory elements–ramp, stairs, elevator–were placed. They were volumetric, opaque, monochromatic, in perspective with the structure grounded. The color was white, grey, black; the materials reinforced concrete, steel and cement. Once the single inhabitant passed through the wall he was in a space overlooking a landscape (trees? Water? Earth? Sky?) which was basically private, contemplative and reflective. There

> were three suspended floors cantilevered from the collective elements. The materials on this side of the wall were glass and reflective metal; a fluidity was sought after. Whereas the collective side was hard, tough, concrete, the private side was inwardly reflective, a light shattering into fragments, mirror images moving along the polished surfaces of metal." (Hejduk 1985, 59)

The vertical circulation and the ramps provide structural support while the living accommodations are the foregrounded objects. The functional connections between spaces require one to continuously cross between support and object, to treat them as a single composition. The wall acts as a constant visual reference. Its surfaces is visible from spaces at different levels. Hence, the followings are generated: the almost paradoxical parallel foregrounding of the threshold, the experience of crossing, the transient moment rendered architecturally present, and the permanence of reference to the wall over the length of time.

Hejduk's reading of Braque and Ingres' paintings in terms of sensual space strongly suggests another aspect of architectural reality that is not the mere architectural plan. As a medium that captures the experience, at least the visual experience, within a space is needed, the movie becomes the tool since it literally records what one sees (and hears) in a space, which approximates an authentic experience. Meanwhile, a movie carries intension, as shooting techniques such as the camera angle, the lens, and the sequence direct how the viewer of a movie perceives the space.

Although a visit to Wall House 2 in Groningen, Netherlands, took place in 2003, the analyses of this thesis will be based on computer generated movies that reconstruct possible

experiences within the space. The reason why animation rather than onsite shots have been used is that the former provides simplified and purified conditions for the study. Discussed in more detail in later chapters, this issue will be addressed here by simply taking a neutral movie shot. That is, a shot will take place at normal eye-level with the camera shooting straight ahead with no rotation. In this way, the space will be relatively depicted in an objective way.

Let us take a virtual tour of Wall House 2 (Figs. 3.26 and 3.27). Entering from the rear of the building, one immediately faces a long, narrow, steep staircase. Light is cast from up high in back from a window above the door. Climbing up, one faces a narrow corridor that leads to the light. On the right, there is a space in organic shape. Walking along the corridor is like walking in the tunnel. However, narrow windows give a hint of light and the outside. As one gets closer and closer to the end of the corridor, he is suddenly confronted by pairs of long vertical windows, in between which the major wall can be seen from both sides. Because of the tight proximity, one must radically tilt his/her head up or down in order to see the edge of the wall. A sense of gap is generated with physical stress. Finally, one enters the space of organic shape with horizontal windows. The fluidity of the boundary of this space creates a pleasurable ending to the journey. At this point, one must go downstairs or upstairs by only one route, narrow spiral stairs. Light reflects on the ceiling of the stairs so that it gets darker as one goes down and lighter as one goes up. The form of the space becomes freer upwards. The shape of the lower floor space is the closer to normal than the other two. The middle floor space has a free shape in plan. On the highest floor, where the living room is, a roof undulates freely.

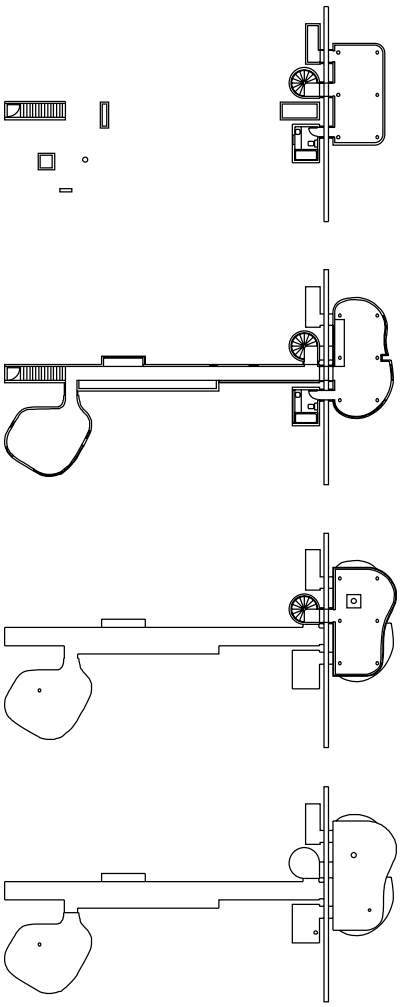


Figure 3. 26 Wall House 2

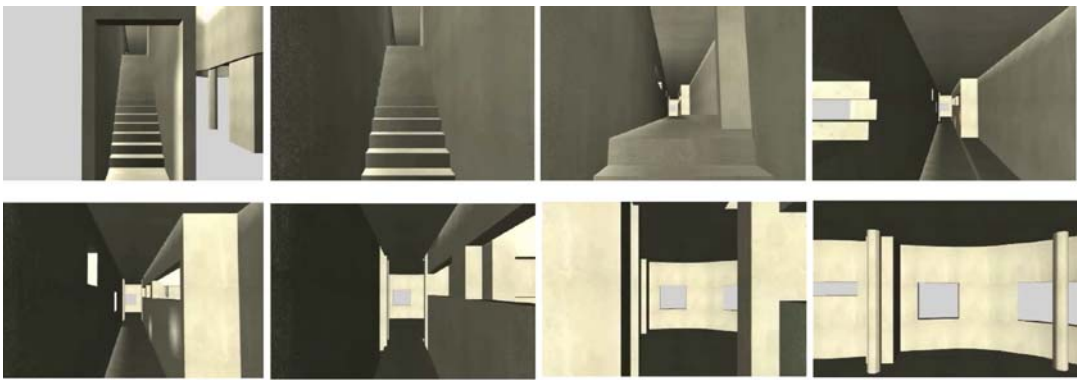


Figure 3. 27 Entering the House

Wall House 2 is set in several pairs of oppositions: restraint and freedom, light and darkness, horizontality and verticality. The space of the house begins as a very restrained space and gradually becomes a freer space in an organic shape. The three stacked free spaces for living, dining, and sleeping are separated by the restrained spiral stairs. Corresponding to the contrast between restraint and freedom, light and darkness accentuate the spatial character. Light makes free space freer while darkness makes restrained space more restrained. Meanwhile, horizontality is set opposed to verticality. The entrance and the long corridor elongate the horizontality; the three-stacked space and the spiral stairs that connects them accentuate the verticality. The contrast between horizontality and verticality is also used on the two sides of the corridor. In the middle of the corridor, a window emphasizes the horizontal frame with depth. When the corridor meets the wall, the vertical windows by the wall are almost slices, as if the boundary is alternately material and immaterial. Above all, frontality and laterality are foregrounded, which corresponds to the idea of flatness.

This argument is actually an extension of Frampton's comments on the work of the *New York Five*. On a visual level, the major wall not only serves as a canvas on which objects are foregrounded and displayed but also, more importantly, suggests a frontal point of view of the building. On a structural level, the long corridor not only emphasizes laterality but also, because it is perpendicular to the wall, suggests a frontal approach to the wall. The space is of great depth before it passes the wall. On the other side, the space becomes units attached to the wall. The process of entering the house, crossing the wall, and at last reaching the front space of the dining area is constructed in such spatial attributes of depth that it in fact exemplifies a process of compressing depth. That is, the wall defines the flattest moment.

Besides understanding the overt separation defined by the wall, one remains alert due to the unusual experiences of the journey through the Wall House. The viewer is directed upward upon entering the house and then drawn forward along the corridor, a silent space that prepares one for the climax. However, one does not enter the space where all the light is until attracted by the threshold, the wall. The threshold is repeated in the journey whenever the viewer enters the major spaces. Thus, spatial conditions generated in the Wall House challenge the body intensely and directly so that one interestingly feels like a bird in the house. For example, the major corridor is floating in the air; when it goes up, it becomes lighter and brighter, and thus freer; but when it goes down, it becomes heavier and darker, and thus more rigid. The pressure is always present in the area across the major wall.

As it has become obvious in the process of argument, no compositional analyses can be done as rigorously as they were in the Diamond Series. The architectural space refers to the paintings by virtue of exemplifying a fundamental spatial relationship, separation, and a fundamental attribute, flatness. The major wall in the Wall Houses is the key element that, by itself, defines separation and exemplifies flatness. The concepts of separation and flatness are generated by the spatial relationships built around the wall. These relationships not only resonate in what is demonstrated by the wall, but also anchor abstract space in the medium of architecture where spatially embodied experience is essential. Furthermore, the idea of flatness is enriched and evolves as a progression of compression in the sequence of experiencing the space instead of being merely a flat moment when crossing the wall.

3.3 Chapter Conclusion

In this chapter, we focused on reading paintings as a design means or as design ends. Interwoven with this distinction is another distinction, between reading a painting in terms of syntactic relationships between elements and in terms of spatial concepts. The former provides the design means and possibly the design end while the latter only leads to the design end.

3.3.1 Intentional Reading of Painting

At this stage, we cannot avoid the intention of reading a painting. Hejduk's reading of Mondrian's paintings seems to be straightforward. He captures the compositional principles of the paintings. Hejduk's reading of Braque's and Ingres' paintings appears to fall into two kinds of intentional readings. One is that he does not follow the artist's original intention. In some cases, it is his own intention, not the obvious subject matter of the painting that drives reading. By imposing his peculiar reading onto the painting, Hejduk makes a statement. The other kind is that the intention gradually becomes clarified as we get to recognize the commonalities among readings. For example, the mirror in Ingres' painting states a spatial and a material condition: separation. Looking back at Braque's flying birds, the crossing of this separation becomes foregrounded.

Hejduk highlighted flatness in Mondrian's paintings. The reading of flatness is not limited within the flat appearance of the painting but a result of rotation. Thus, a constructive

process is embedded in the notion of flatness. Hejduk also highlighted flatness and otherness in his observation of Braque's and Ingres' paintings. The observation is based on the perceptual character of the lack of perspective of the paintings. In Braque's paintings, space demonstrates vagueness and fluidity. In Ingres' painting, the unusual size and structure of the lady's body destroys the conventional, reasonable reading of perspective. Thus, flatness and otherness are the two concepts that Hejduk reads as a design end of the paintings.

3.3.2 Design Means versus Design Ends

If exploring individual architectural language is a key issue for architects, they seem to be able to do it in two ways. One is to work on the language directly through adaptation and transformation. The other is to define spatial concepts first and let specific language emerge from the articulation of the concepts. The two allow architects to use paintings as the departure points of architectural design. In this sense, the purpose of interdisciplinary thinking is not to set up links across media but to set up an approach for creating design means and design ends.

Interestingly, the sensuous aspects of paintings such as texture (either the texture of the painting or the texture suggested by the painting) stroke, and color combinations communicate with the viewer directly through elements that challenge the sensors of the body. Therefore, one may read the paintings as patterns of shapes or colors and treat the painting more as a perceptual given. In contrast to this reading is the intellectual reading of a

painting. Intellectual aspects communicate through structure (either topological or geometrical). One may reconstruct intellectual operations and decisions when thinking about the painting conceptually. For example, one would ask why Mondrian tilted the canvas into a diamond shape, or why Braque introduced a bird into this still life. In these cases, one can view the paintings not as having a given pattern but as possessing a construction.

Even more interesting is how spatial concepts are carried on in Hejduk's architecture as a design end. In the case of the Diamond Series, the concepts are inherited from Mondrian's *Diamond Compositions*, while the percepts of these paintings are literally translated into the architectural plans. The language of painting is taken as a design means and delivers the language of architecture. In the case of the *Wall House Series*, the percepts of the struggling bird cannot be understood literally, nor can the opaque mirror and the mysterious body. In this case, the architect must devise his own language. The composition of neither *Comtesse d'Haussonville* nor *the Studios* is taken into account. Regardless of the woman's position, her poses, or the point of view, as long as the mirror appears to be of no reflectivity, the reading stands, and the design of the *Wall Houses* may remain the same.

While Mondrian's diamond shaped paintings are notations of composition, *Comtesse d'Haussonville* can be seen as a notation of material quality. The sensuous elements of the paintings and even the vertical element of the mirror may be argued to suggest design means. However, they are much less clear than the *Diamond Compositions,* which provide a complete configuration with elements while the mirror suggests only one element and its attributes. In the case of *Comtesse d'Haussonville,* the elements lack spatial configuration and are too abstract to be considered a visual language.

3.3.3 The Agony with Formalism

Hejduk's unconventional dialogue across the media of painting and architecture reveals an agony with formalism. He chooses two kinds of paintings as the departure points of his architectural design. Mondrian's *Diamond Compositions* strongly present formal and compositional principles, while Braque's and Ingres' paintings do not. By adapting the formal principles from the paintings, Hejduk seems to construct pure formal meaning in his architecture. In other words, he explores the architectural form as a compositional system in relation to works in other forms of art. In the case of Braque's and Ingres' paintings, Hejduk seems to deviate from the pure formal meaning.

However, the pure compositional similarity between Hejduk's *Diamond Series* and Piet Mondrian's *Diamond Compositions* is merely part of Hejduk's restatement of the paintings. The meanings of flatness and otherness are quite complex, not purely formal, as they are a sentiment derived from paintings and become a concept to be articulated in the medium of architecture.

3.3.4 The Following Chapters

In order to interrogatge in depth how the sentiments, such as flatness and otherness, are constructed in the medium of architecture, Chapters 4 and 5 will focus on flatness and Chapters 6 and 7 otherness. They will include an analysis of Hejduk's work in two other media, architectural drawings and poetry, along with an examination of his architecture.

These chapters will differentiate drawings and poetry from painting, which will serve as the departure point of restatement while the former two are media through which the specific concepts of restatement are formulated and clarified. In a way, the media of architectural drawing and poetry are working media.

CHAPTER 4
DRAWING FLATNESS

Abstract

Architectural drawings are not only documents of the design results but also thinking tools. They not only provide an environment for formulating and re-visiting designs but also, more importantly, embed design intentions. They reveal the modes in which architecture is thought about. In this chapter, Hejduk's architectural drawings of the *Diamond Series* and the *Wall House Series* will be studied as a bridge between his readings of paintings and his design of architecture. The aim is to identify the special qualities of these drawings in order to understand how architectural intentions can be formulated in the medium of drawing.

Hejduk eliminated the use of perspective and demonstrated his own device of architectural drawing. He drew "flat" oblique projections. What does it mean to establish his own architecture drawing conventions? What does flatness in Hejduk's drawings bring to his design of architecture? In this part, we will examine in detail how Hejduk's architectural drawings become flat in order to understand how specific qualities in drawing contribute to the articulation of concepts in Hejduk's architecture.

> "If the Cubist canvas provided thought to the architects of the twenties, there may be some significance in the diamond canvases of Mondrian for architects today. The initial spatial evolution in the form of a new projected and exploded space were sought after in the Diamond Projects. Another way of looking at space and form can be adopted. The Renaissance space of perspective is a fact; the flat-shallow contained flux space of the post-Cubist canvas is a fact."
>
> (Hejduk 1985, 48)

By nature, the process of architectural design formulation crosses different media. Other media, rather than real architectural space, initially facilitate the thinking of architect. Conventionally, architects use the media of drawings, physical models, and computer models. Drawings, such as the plan, elevation, and section, are used to study architecture as two-dimensional projections. Other drawings, such as axonometrics and perspective, are used to study the three-dimensionality of architecture, albeit still in the two-dimensional environment of the space on paper. In addition, while physical models are used to study architecture as real three-dimensional objects, computer models are virtual three-dimensional objects. Although what one sees on the computer screen are two-dimensional projections, a virtual three-dimensional space exists in that computer models can be manipulated as three-dimensional objects. This differentiates computer models from architectural drawings that suggest three-dimensionality.

This chapter will focus on Hejduk's drawings that not only represent three-dimensional space on a two-dimensional piece of paper but also visually compress the three-dimensional representation of objects. That is, drawing flatness. The purpose of this chapter is to

understand how flatness, which is illustrated in Mondrian's paintings, is re-stated in Hejduk's drawings. This study will provide the basis for the discussion in next chapter in which how flatness is re-stated in Hejduk's architectural space will be examined.

4.1 Observation: The Absence of Perspectives

From this study of Hejduk's architectural drawings of the Diamond House Series and the Wall House Series at the Canadian Center for Architecture (CCA), an interesting observation was made: In the entire collection, not a single perspective of these two series was drawn! The only perspective found among all the drawings at the CCA was placed in the miscellaneous category. This perspective shows curvilinear walls meandering in between the column grid (Figure 4.1) (Photographed from the Canadian Center for Architecture). This single existing perspective is based on a central vanishing point, appearing to be a test of two kinds of surfaces along a passage. The drawing seems to be a way in which Hejduk compared clear orientation and vague orientation in space.

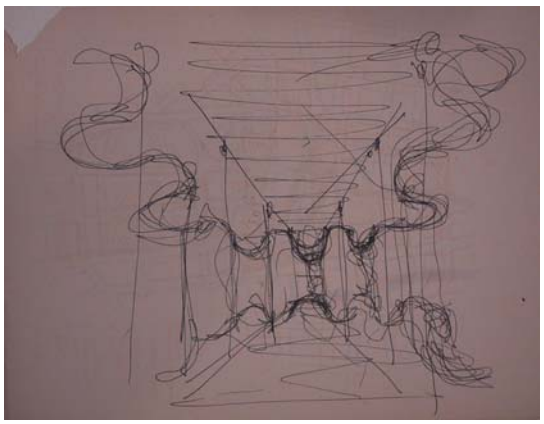


Figure 4. 1 The Only Perspective

Did Hejduk ever draw perspectives while he was designing the two series? Mr. Steven Hillyer, the director of the Archive Center at the Cooper Union, confirmed that he seldom did. "There are no perspective drawings of either the Wall House or the Diamond Series. That would have been completely antithetical to the nature of the work." [1]

Then why was perspective drawing eliminated from Hejduk's set of drawings? The answer to this question lies in the qualities that this perspective possesses. As a simulated view of the space, the perspective provides an illusionary space, or what the space looks like. If, in the first place, he intentionally detached himself from thinking of architecture as natural appearance, what was Hejduk really trying to do? If the perspectives, as Hillyer said, had really been "completely antithetical to the nature of the work,"[2] what was the nature of his work? To Hejduk, architectural drawings were not only documents of what had been designed but also, more importantly, records of how the designs were formulated. The very convention of drawings reveals the specific way in which he approached his designs. It seems that the natural appearance of the building is hidden by Hejduk's intention of foregrounding the concept of the building.

4.2 Flatness in Axonometric Drawing

Drawing the diamond shape in axonometric projections, Hejduk observed an interesting phenomenon.

[1] From email to the author on February 05, 2004.
[2] Ibid.

> "… When a square form in plan is drawn in isometric it appears to the eye as a three-dimensional projection. When more than one floor plan is projected in isometric, it builds up quite naturally and still appears as a three-dimensional representation. When the diamond is drawn in isometric and has a plan of more than one floor, a very special phenomenon occurs. The forms appear two-dimensional; the stories overlap each other in a primary two-dimensional vision. The forms tip forward in isometric towards the picture plane; they are three-dimensional, yet a stronger reading of two-dimensionality predominates. A meshing together of two-dimensions pushing forward is the phenomenon we are most aware of."
> (Hejduk, 1985, 48-49)

> "As Cubists in their paintings tipped objects forward towards the picture plane, the isometric projections of the diamond accomplished a similar point of view for architectural drawings. The isometric projections of the diamond are Cubist projections in architecture, therefore completing the formal relationship between Cubist projection in painting and Cubist projection in architecture… The two dimensionality of a plan, projected into the three-dimensional isometric, still appears two-dimensional, closer to the two-dimensional abstraction of the plan and perhaps closer to the actual two-dimensionality of the architectural space."
> (Hejduk, 1985, 49)

These quotes indicate that the idea of two-dimensionality (flatness) interweaves with the mechanism of axonometric projection (or isometric projection, as Hejduk calls it). Two-

dimensionality is embedded in the specific rotation of the axonometric projection of a diamond shape. As noted in the Introduction, numerous scholars have claimed that Hejduk's axonometric drawings are flat. However, only detailed study, not simple reference to what Hejduk said, can determine if this is true.

4.3 Depth in Picture-Plane

The understanding of flatness goes hand in hand with the understanding of depth. Flatness is the elimination of depth. In order to understand how flatness is constructed, we need to understand how depth is eliminated, which requires an understanding of the construction of depth first.

The flattening of space appears to Hejduk as a medium-rooted problem. In *The Flatness of Depth*, Hejduk looks at conception, image, representation, and realization across the media of painting, photography, film, and architecture. The major concern is how much the three-dimensional space is compressed in each of these media. Besides theoretical discussion, Hejduk uses architectural drawings as a medium to register the idea of flatness. Superficially, his architectural drawings raise the traditional question of how three-dimensional space is captured in the two-dimensional picture-plane. However, the problem of flatness is not as simple as compressing three dimensions into two. One cannot assume that a two-dimensional representation represents more flatness than a three-dimensional space. For example, a perspective on a picture-plane may indicate much deeper space than the real space of a cube. Thus, depicting depth in a picture-plane does not necessarily indicate

flatness. Therefore, one has to distinguish the depth existing in space and the depth suggested in the picture-plane. The former is a real spatial dimension. The latter is a depiction of the former.

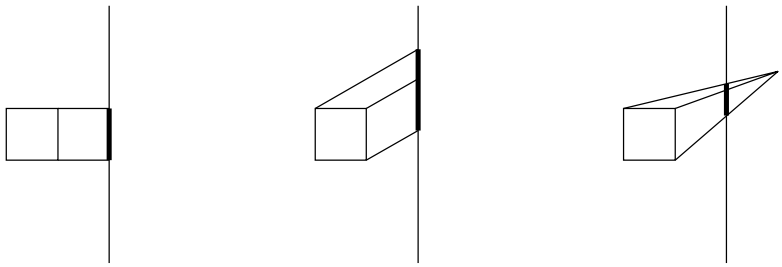
The investigation of depth in picture-plane involves one important issue. Depth may be understood on the perceptual level as well as on the conceptual level. Although perception and concept are inseparable, they do define different levels of understanding. For the simplicity of the argument, we will limit our discussion within the boundary of visual perception. To be perceived, depth must be present to the eyes, as eyes are the receptors of depth. The concept of depth is more an idea of structure than merely visual presence. In most cases, one cannot literally see the structure of space. Structure only reveals itself when one reconstructs his or her percepts. In simple words, perception is what one sees that is literally related to depth while concept is what one understands of the spatial qualities of depth. Thus, we need to distinguish depth that one sees from depth that one understands.

In a picture-plane, depth is either illustrated as a perception or embedded as a concept. At a very basic level, a picture-plane catches a view of space and provides illusions of depth. At another level, views can be manipulated and juxtaposed on the picture-plane. This involves the manipulation of drawing elements as well as relationships among the views. The concept of depth may be embedded in these conscious manipulations. Let us analyze both the literal representations and the manipulations of the views.

4.3.1 Depth in Projection Systems

A projection system relates a three-dimensional object to its two-dimensional image on the picture-plane. The image of the object possesses different degrees of illusionary depth. Of importance is that in a projection system, the only means of suggesting depth is by lines instead of by shades and colors.

Three major types of projection systems—orthographic, oblique, and perspective—differ with regard to the relationship of the projectors to the picture plane. In orthographic projection, the projectors are perpendicular to the picture plane; in oblique projection, the projectors are oblique to the picture plane; and in perspective projection, the projectors go towards a specific point called the station point, which represents a single eye of the spectator (Figure 4.2).



a. Orthographic Projection b. Oblique Projetion c. Perspective Projection

Figure 4. 2 Projection Systems

The category of orthographic projection consists of multi-view projection and axonometric projection, which differ with regard to the orientation of the object to the picture plane. The multi-view orthographic projection assumes the principal axes of the object parallel or perpendicular to the picture plane. Hence, it reveals a particular aspect of an object, such as plan, elevation, and section, but together, they are able to fully describe its three-dimensional form. By contrast, in axonometric projection, the three principal axes of the object are assumed to be oblique rather than parallel or perpendicular to the picture plane. An isometric projection is a particular kind of axonometric projection. Isometric projection assumes the three principal axes make equal angles with the picture-plane and are equally foreshortened.

How is depth represented in projections? All three major projection systems tend to provide an illusionary appearance of an object. However the degrees of the illusions are different in terms of how close the projection principles are to the generation of an actual view in space. We assume that the closer the relationship is, the more realistic the projection becomes. Among the three, perspective projection provides the closest appearance of an object to a viewer's perception. Orthographic projection assumes a perpendicular view; however, it denies the single viewpoint. Oblique projection assumes a tilted view, not only denying the single viewpoint but also assuming the viewer's visual angle is unlimited. The angle that the oblique projectors create with the picture-plane determines the lengths of the receding lines. However, the principal face, which is parallel to the picture plane, always retains its true shape. By breaking more and more rules of perception in reality, the projection system moves away from providing realistic appearances and towards providing explanatory images. The latter more explicitly reveals the logic of the space.

Although projection systems determine how realistic the projections are, they do not determine how deep or flat the space appears in the projection. For example, depicting an object in perspective requires that the viewpoint determine how much depth is revealed. A frontal perspective depicts only one surface of the cube, which does not provide any sense of depth at all. If the viewpoint is moved to the side of the cube, its depth is obvious. Hence, the representation of depth also depends on the revealed number of orientations.

In the parallel projection of a cube, one, two, and three faces can be revealed. Conventionally, the projection of one face could be a plan, an elevation, or a section if the object were sliced through. An axonometric projection may reveal two or three faces. Plan and section are the flattest projections since they actually represent a cut-through situation on a surface. Elevation indicates near and far, in and out, through the overlapping relationships among the surfaces. Two-face axonometric drawings are what Hejduk did in the drawings of his Diamond Series and Wall House Series. This peculiar projection introduces an interesting oscillation between flatness and depth. This issue will be revisited in the discussion on Hejduk's drawings. Three-face axonometric drawings show faces in all three dimensions, overtly depicting depth and volume.

4.3.2 Depth in Drawing Elements

In projection systems, we looked at how real depth is represented on a picture-plane. Here, we will take a slightly different approach by looking at the drawing elements only and seeing

how they suggest depth. In this way, drawing elements are examined as autonomous agents rather than representations.

Depth is created through comparison in reality and in drawing. Drawing elements may suggest depth through their relative sizes, positions, or other attributes that are independent from an actual projection image. Here we will refer to Gyorgy Kepes' *Language of Vision*, This book, published when Hejduk was in school in 1944, provides important insights into visual theory. Although we cannot ascertain if Hejduk was directly influenced by this book, it does provide an excellent sample of how two-dimensional compositions and their visual effects were discussed.

Apart from perspective, Kepes discusses three other ways of constructing depth in a picture-plane. First, depth is constructed in the vertical relationship of position. In a vertical location, the object that is closer to the bottom indicates a position closer to the viewer. However, this way of constructing depth only corresponds with a bird's eye view perspective in which the horizon is above the objects. Normal perspective or a frog's eye view may show objects that are closer to the viewer in the position that is closer to the top of the view.

Second, depth is constructed in the relationship of overlapping. The figure that intercepts the visible surface of another figure is perceived as closer. Figures appear parallel with the picture-plane and tend to establish a receding spatial relationship.

Third, transparency indicates not only an optical order but also, more importantly, a spatial order, that is, the fluctuation of space. "The position of the transparent figures has

equivocal meaning as one sees each figure now as the closer, now as the further one." (Kepes, 1951, 77)

Kepes' discussion is intriguing, as it indicates that none of the three ways of suggesting depth is a result of the mechanism of projection. However, understanding them is, in fact, tied to the understanding of projection. For one, the vertical position can be seen as that which is in normal perspective. Below the line of sight, objects that are closer to the viewer always appear lower on the picture of perspective (Figure 4.3). The overlapping situation can be seen as a normal orthogonal projection whereby objects that are further are always blocked by objects that are closer. Moreover, the reason why transparent figures are ambiguous in terms of depth is that the projection rules do not work anymore. The viewer loses his or her reference of judgment.

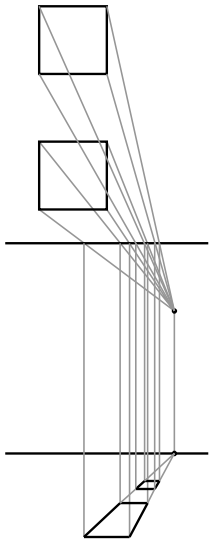


Figure 4. 3 Vertical Relation in Picture-plane Indicating Depth in Space

Although not mentioned by Kepes, another drawing element that may suggest depth is the angle of lines. A single line may or may not suggest obvious depth. Theoretically, a line can always be associated with depth because it suggests numerous conditions with depth in three-dimensional space but only one condition without depth when this line is parallel to the picture-plane. However, some lines suggest even stronger perspective than others—those that are neither horizontal nor vertical on a canvas. This is due to visual illusion because the majority of lines projected in perspective are neither horizontal nor vertical. The association of non-orthogonal lines with perspective then leads to depth.

4.4 The Construction of Flatness

Based on the previous discussion, we understand how depth can be constructed in the medium of drawing. Let us put Hejduk's architectural drawings within this framework. The purpose is to understand how he compresses depth in drawings. In simple words, how are his drawings flat?

4.4.1 The Two-Face Axonometric Projections

Axonometric projections are used in every individual project of both the *Diamond* and *Wall House Series*. In the *Diamond Series*, it is peculiar that one sees only "two sides" of the "diamond" (one plan and one elevation) as opposed to three sides (one plan and two

elevations) in conventional axonometric projections. Because of the absence of the third side, the diamond object becomes a flattened picture. This effect was in fact intended by Hejduk.

"When a diamond form in plan is projected by isometric it becomes a square." (Hejduk, 1985, 48-49) This particular effect of the axonometric projection of a diamond came from Hejduk's observation of Mondrian's tilting the canvas by 45 degrees as an answer to Theo Van Doesburg's rotating the inner grid by 45 degrees (Figure 4.4). The difference between Van Doesburg's rotation of the inner grid and Mondrian's rotation of the periphery of the canvas is signficant. Hejduk's observation of axonometric projection also involves rotation, but essentially rotation in three-dimensional space. His diagram of axonometric drawings can be understood only in a virtual three-dimensional space. However, the rotation of the diamond flattens the space since it comes back to the horizontal-vertical appearance, which is identical to a flat square in a flat picture plane. Hejduk's well-known diagram most clearly illustrates the action of rotation and flattening (Figure 4.5). What differentiates Mondrian's rotation from Hejduk's rotation is the media in which they work, so the rotations differ in meaning. Mondrian's rotation occurs on a two-dimensional picture-plane while Hejduk's occurs in three-dimensional space. Moreover, Hejduk inherited the flatness of space by operating three-dimensional objects while creating a "two-dimensional" appearance.

As one would expect, the axonometrics of Hejduk's Diamond Series are all constructed by rotation so that the diamond plans overlap and stack up as squares. One sees only the plan and one elevation of the diamond building, which is one surface less than in conventional axonometrics. However, the third dimension is suggested in a rotation towards or away from

a. Van Doesburg's Rotation b. Mondrian's Rotation

Figure 4. 4 The Tilted Canvas

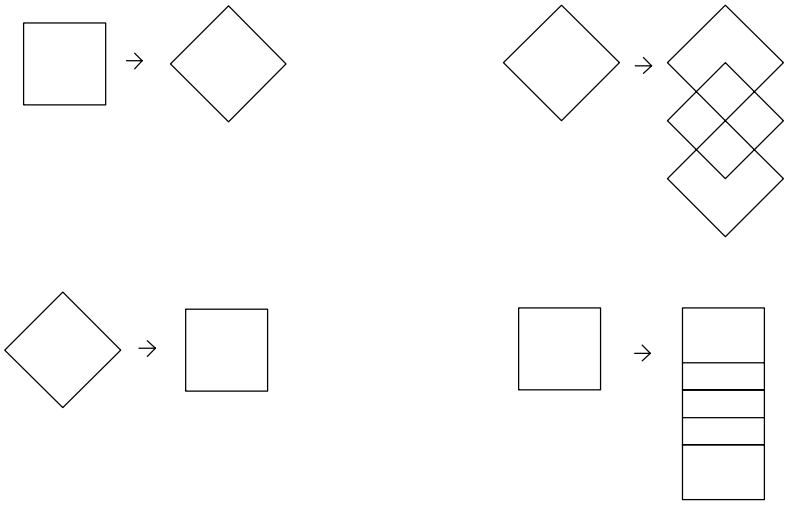


Figure 4. 5 The Axonometric Rotation in Hejduk's Diagrams

the picture-plane. That is, the rotation from the horizontal plan towards the vertical elevation or the rotation from the vertical elevation towards the horizontal plan (Figure 4.6).

The *Diamond Series* is peculiar due to the 45-degree rotation of the inner grid to the edge. Because of this rotation, two possible axonometric projections can be made in order to compress the three-dimensionality of the object. Hejduk already used one way—to rotate the diamond object by 45 degrees when projecting it on the picture-plane. (Figure 4.7a) The other way is not to carry on the rotation so that the diamond object is projected orthogonally onto the picture-plane (Figure 4.7b). Both ways of projection reveal the contrast between two- and three-dimensionality. In Hejduk's case, the overall profile of the diamond is flattened while the inner partitions are depicted in three dimensions. In the other case, the overall profile maintains three dimensions while the inner partitions are flattened. In simple terms, Hejduk's projection is *3D in 2D* while the projection without rotation is *2D in 3D*. The fact that Hejduk chose *3D in 2D* as opposed to *2D in 3D* reveals his focus on the diamond edge and the configuration.

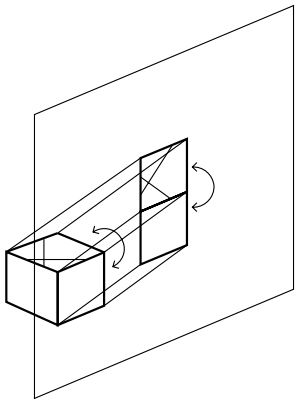
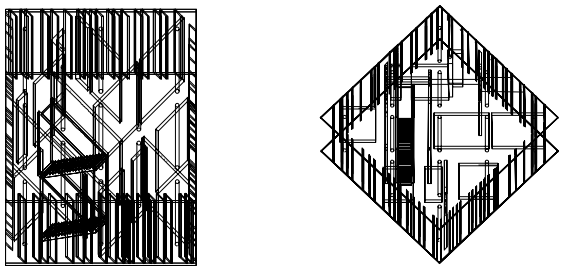


Figure 4. 6 Rotation Suggested in Hejduk's Axonometric Projection

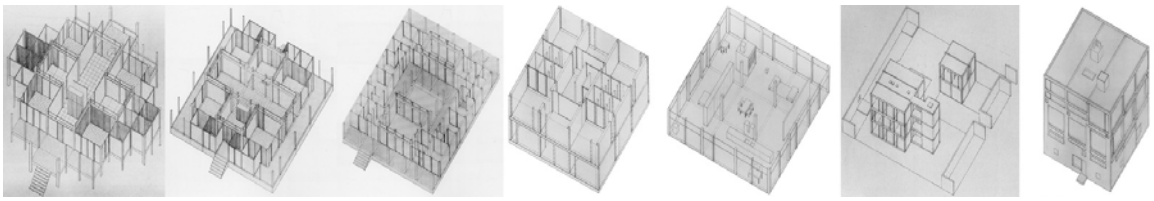


a. 3D in 2D b. 2D in 3D

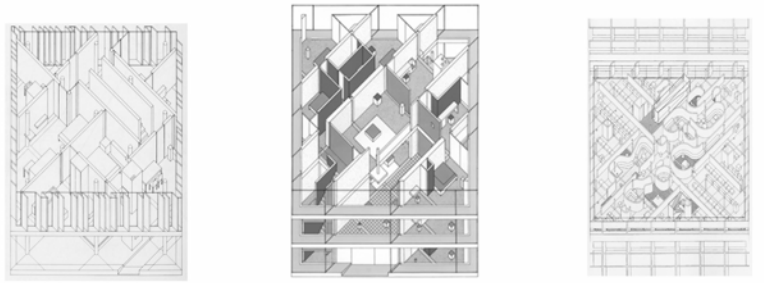
Figure 4. 7 Two Possible Axonometric Projections of Diamond House A

Even more interesting are the different degrees of the building objects in relation to the picture-plane among the Texas Houses (Figure 4.8a) (Hejduk 1985), an important series before the Diamond Series (Figure 4.8b) (Hejduk 1985), and the Wall House Series (Figure 4.8c) (Hejduk 1985), which came after the Diamond Series. All the axonometric projections of the Texas House Series are a conventional 30-60 degrees while all the Wall House Series axonometric projections are 0 degree. As one can imagine, the axonometric projections of the Texas House Series carry a strong sense of three-dimensional depth of space. The axonometric projections of the Wall House Series are as flat as those of the Diamond Series. However, their projection principles are different, the former an oblique projection and the latter an orthographic projection.

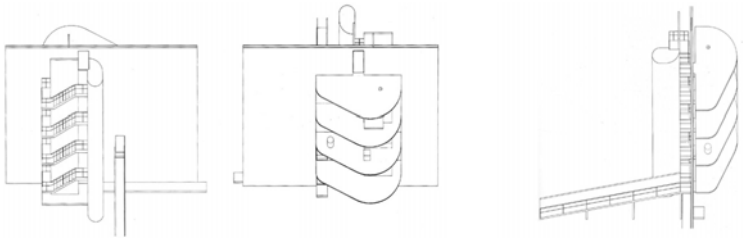
The gradual change among the axonometric drawings of these three series is toward a clearer and clearer intention of compressing three-dimensional space in two dimensions. Both the Diamond and Wall House Series have the same flattened axonometric drawings. However,



a. The Texas House Series



b. The Diamond Series



c. The Wall House Series

Figure 4. 8 The Changes in Axonometrics of Hejduk's Early Series

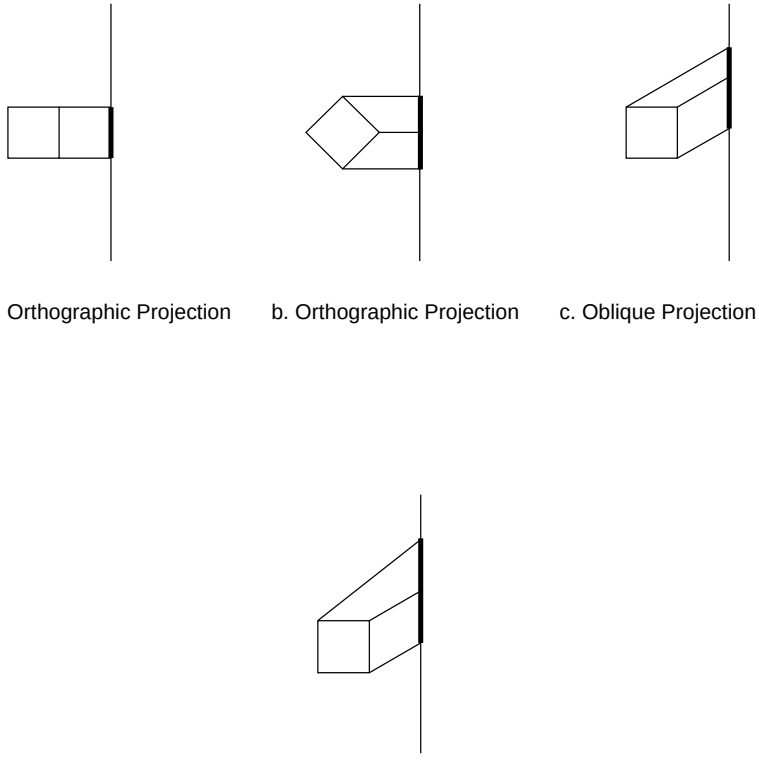
flatness in the Diamond Series is achieved by exploiting the 45-degree rotation of the diamond plane and the 45-degree rotation in the axonometric projection. In a completely different manner, flatness in the Wall House Series is achieved by not rotating at all. Thus, the intension of creating flatness in drawings is most clearly revealed.

Besides the 45-degree rotation, Hejduk also challenged the conventional assignment of line weight. According to convention, the depth of a drawing can be enhanced by contrasting line weights. A hierarchy of line weights can distinguish between spatial edges, planar corners, and surface lines. Hejduk used only line weight in his axonometric projections, so depth was further denied.

4.4.2 Compression in Hejduk's Axonometric Projections

Hejduk's axonometric projections are undeniably flatter than conventional axonometric projections, in which depths are minimized, but they still exist. In the Diamond Series, as we discussed before, the elements within the boundary are three-face axonometric projections. In the Wall House Series, although the elements within the boundary remain two-face projections, the overlapping relationships among the elements still suggest near and far and hence, depth. If overlapping is taken into consideration, we cannot argue that the boundaries of the Diamond Series exemplify strict flatness. Although by rotation, all the diamond boundaries appear to be squares in axonometric projections, their overlapping, one on top of the other, still embeds the idea of depth.

The important issue is not whether Hejduk's axonometric drawings are completely flat, but if they depict the idea of compression, not only from three-dimensional space to two-dimensional projection and in a seemingly two-dimensional composition, but also, more importantly, in plans and elevations within the same organization. It is noted that in all of Hejduk's two-face axonometric drawings, a top plan is organized adjacent to an elevation. One might say that we see the top and two vertical sides of a cube in any axonometric drawing. Therefore, the significance in Hejduk's work is that plans and elevations are without distortion (Figs. 4.6, 4.9) while in conventional axonometric drawings, distortion always occurs. If this is true, then why is the compressing of undistorted plans and elevations significant?



a. Orthographic Projection b. Orthographic Projection c. Oblique Projection

d. Hejduk's Projection

Figure 4. 9 Distortion in Axonometric Projection Systems

In order to answer this question, we have to understand what a plan and an elevation represent.[3] On the one hand, in architecture, a plan signifies the cognitive aspect of space. It reveals, in the most complete sense, relationships that cannot be seen. Therefore, a plan is not about situated experiences within the space; it is about the understanding of space as a whole, a concept of the space. On the other hand, an elevation represents the visible. One sees the elevation even though it is distorted in most cases. To some extent, elevation is a percept. Conjoining these two kinds of depictions in a "flat" organization indicates setting the contrast to an extreme degree between architecture as a set of concepts and architecture as a set of percepts. Is this not the theoretical exploration of Hejduk and of architects in general? One understands architecture and raises it on a conceptual level, but understanding is deeply rooted within the percepts in space. It is in this specific way that concepts in architecture differ from those in painting. It is also how notation in architecture differs from that in painting. Hejduk's two-face axonometric drawings make a clear statement of these differences.

4.5 Chapter Conclusion

In Hejduk's drawings, flatness is constructed on the perceptual level, as a correlate of a rotation by 45 degrees in axonometric projection. The overlapping squares in Hejduk's axonometric drawings decrease the three dimensionality of the volume. We questioned the

[3] The following argument follows Dr. John Peponis' work on Berger. In his work, Peponis associates plan with the cognitive aspect of architecture and elevation with the visual aspect of architecture. He suggests the compression of these two as the significance of Hejduk's drawings.

latent three-dimensionality in Hejduk's two-dimensionality (flatness) of drawing. However, this chapter basically revealed flatness according to Hejduk's point of view. Therefore, in the next chapter, an independent framework will be developed to further investigate the concept of flatness in the medium of architecture.

More importantly, flatness is not simply a visual effect but a way in which Hejduk drew his audience's attention away from illusionary images to his conceptual statements. Thus, the consciousness of flatness of space renders his architectural drawings architectural statements. This leads to our following reading of flatness in Hejduk's architectural space. Therefore, Hejduk's axonometric drawings are not a final product of the interdisciplinary thinking system but a working medium in which architectural concepts are clarified.

CHAPTER 5
SPACE: FLATNESS TRANSFORMED

Abstract

This chapter will investigate how this flatness, which is clarified in the medium of architectural drawing, is re-stated in the medium of architecture. Flatness will be further understood within the differences between how the medium of drawing and the medium of architecture manifest the concept. This interrogation will be pursued through the analyses of the Diamond Museum and Wall House 2.

The previous chapter examined how flatness is foregrounded as a visual property in Hejduk's axonometric drawings. Is flatness merely constructed in his drawings, or is it also constructed in the space he designs? One may hypothesize that flatness may, in the end, evolve as an architectural concept in Hejduk's work. Drawing flat axonometric drawings could be the way in which Hejduk either exercises the idea of flatness or calls for the viewer's attention to flatness exemplified and expressed in his architecture. This seems an exciting idea since one would be able to understand how flatness in drawing is restated in the medium of architecture.

However, determining Hejduk's intentions poses great difficulty since he did not provide a single definition of flatness. Although he often referred to flatness as a key property that he sought to embed in his designs, he never offered a comprehensive definition of the term. Instead, he used works of art to exemplify flatness. One way was through his axonometric drawings. Another was when he referred to flatness when discussing painting, photography, film, and sculpture. His article *The Flatness of Depth,* discussed in Chapter 2, most clearly demonstrates his interest in the relationship between flatness as a concept and flatness in the different media. To be specific, Hejduk discusses how different media exhibit different degrees of depth. Therefore, we have to infer what Hejduk meant by studying the properties of the works that he referred to. More importantly, we need to understand how flatness as a spatial concept has evolved across media and then how it was constructed in the medium of architecture.

Hence, this chapter will pursue two objectives: One is to understand what Hejduk means by flatness, and the other is to understand how flatness is medium specific. It will explain how flatness evolves into an architectural concept through Hejduk's interdisciplinary works.

5.1 Hejduk's Reading of Flatness in Other Works of Art

Let us look at flatness in a broader sense as opposed to flatness in axonometric drawings. The way in which Hejduk referred to flatness may reveal the source of his ideas.

5.1.1 The Visual Effect of Flatness in Painting

At the most obvious level, flatness is an idea of perception that can be discussed in the medium of painting. As it is noted in Chapter 2, Hejduk observes flatness in *Madame D'Haussonville* by Ingres (see Figure 2.24). In a painting, flatness is a percept of the viewer. In other words, a painting appears flat when the normal perspectival effects of the contours do not allow the viewer to detect pieces of objects in an illusionary space. It also appears flat when the material appears opaque. These two mechanisms are the ways in which *Madame D'Haussonville* exemplifies flatness.

The manner in which Hejduk discusses *Madame D'Haussonville* exemplifies a perceptual approach to modern architecture in the middle 20th century. Compared to the arguments of Colin Rowe and Robert Slutzky in their article *Transparency: Literal and Phenomenal*, Hejduk's

flatness exemplified in *Madame D'Haussonville* is more direct. Generally, transparency suggests a sophisticated understanding of architectural depth, and grids, both in painting and in architecture, are dimensionless and flat while constructed space has depth. However, the viewer's perception of *Madame D'Haussonville* registers compression and the collapse of depth. Hejduk's reading of the painting does not involve the emerging grid, but instead the depicted objects. His perception of flatness comes from the lack of perspectival effects. The body parts are not set in a correct perspectival relationship. Furthermore, the mirror exhibits opacity, which suggests flatness, as opposed to transparency, which suggests depth.

5.1.2 Visual Compression Across Media

On a deeper level, flatness is an idea embedded in visual media. Flatness, being a visual effect itself, exemplifies the compressing system of depth and results from spatial construction across media.

Let us re-visit Hejduk's article *The Flatness of Depth*, first published in *Cable* in 1969 between the publications of the first and the second *Transparency* articles by Rowe and Slutzky. In *The Flatness of Depth*, flatness is embedded in media. It is not merely a visual effect by itself, but more importantly, it exemplifies the compressing mechanism of depth. That is, the representation of depth is determined by the specific medium used. Hejduk discussed possible changes from setting up a composition in real space, drawing a picture of it, filming it, and photographing it. It is a process that not only transforms a three-dimensional reality

into two-dimensional space but also defines different relationships between a hypothetical observer and the space.

Hejduk recognizes the many practical aspects of architecture, such as drawing a model on a piece of paper, making a scale model, constructing the building, and photographing or filming the space. That is, the process of architectural design always entails a compression and a restoration of depth, and as a result, the discussion of flatness becomes even more relevant to the medium of architecture.

5.1.3 "*The Failing Distance*"

In *The Failing Distance*, Jay Fellow claims that Ruskin's madness is fundamentally registered in his failure to comprehend recessional space, which then extends to the problem of defining inside versus outside. Fellow's discussions of mental problems piqued Hejduk's interest in spatial issues, and Hejduk referred to the moment of Ruskin's madness several times. A connection is made between the perception of a flattened perspective and the hypotenuse of the diamond. To Hejduk, the failing distance happens at the hypotenuse of a diamond, and the medium of architecture deeply involves the issue of inside and outside. The following is just one of the several quotes that can be found in *Mask of Medusa*.

> "In his book, *The Failing Distance*, Jay Fellow talks about the factor of looking into perspective, which is a diamond configuration flattened out with the point in the distance. So that at the moment of madness, the diamond configuration turns in

> upon the person internally. Well, that moment is the hypotenuse, which is the point of entry-exit, the threshold. The hypotenuse of the diamond-perspective is what I call the moment of the present which I suspect might also be considered the moment of death…The hypotenuse of the perspective is constantly in motion and flattening as you approach any building from the exterior. It flattens out right on top of you at the moment of entry – the moment of the present. It is the quickest condition time-wise; also, it's at once the most extended, the most heightened, and at the same time the most neutral and repulsive."
>
> (Hejduk, 1985, 63)

Hejduk studied the moment of flattening out that occurs at the hypotenuse and then drew a sequence of diagrams to illustrate the idea of flatness (Figure 5.1).

> "When the observer is external to the diamond, looking at the outside of the apex, there is a tendency of the two sides to come forward and flatten out, an extended perspective of lateral extension and vision is produced. Internally, the observer is confronted with a very similar phenomenon although it is the internalization of the situation; he is again encompassed by the flattening out of the two sides; we have here the appearance of a coordination of external and internal experience."
>
> (Hejduk, 1985, 49)

Interestingly, although he talked about how the diamond space could be perceived by a situated viewer, Hejduk used only conceptual diagrams, not experiential representations, to illustrate what he meant by flatness.

Figure 5. 1 The Flattened Diamond

In order to explore the visual experience at the hypotenuse, we use computer-generated perspectives. One camera is set at the hypotenuse of a diamond-shaped space. Another camera is set at the same point of the space but rotated 45 degrees. In this way, it shoots the space as a square. The lenses are set at 28. Intriguingly, the view at the hypotenuse does not appear flatter than the view at the center of the square. (Figure 5.2) The difference becomes obvious only when the camera is moved backwards (Figure 5.3). Hejduk's speculation on

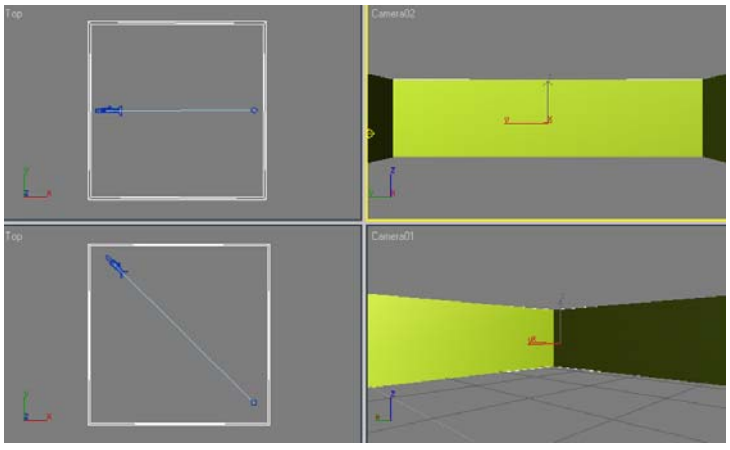


Figure 5. 2 View Comparison within the Boundary of the Diamond Space (a)

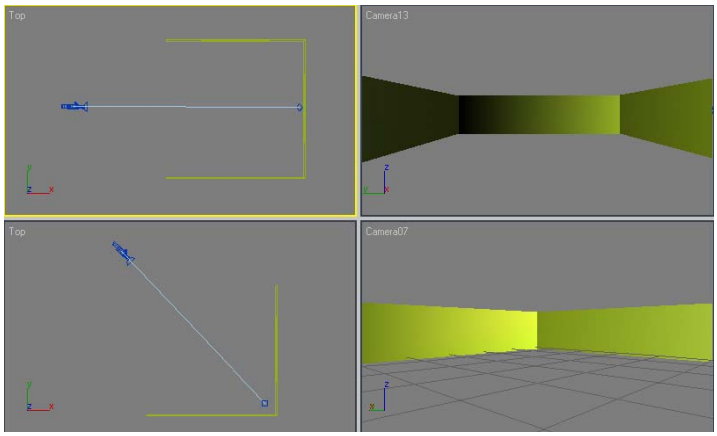


Figure 5. 3 View Comparison within the Boundary of the Diamond Space (b)

perceiving flatness could be based more on the conceptual level than on the literal level. In the case of looking at a square, the perspective is constructed in three vertical surfaces, two of which show depth. In the case of looking at a diamond, the perspective is constructed in two vertical surfaces. Depth does not appear to be fixed on any of these two surfaces but rather indicated by how they conjoin each other.

5.1.4 The Two Levels Flatness

Hejduk explored the concept of flatness on two major levels. The first and most obvious is the level of visual effect. Flatness is captured when expected normal depth is missing in one's visual perception. This case is articulated in detail when Hejduk talked about Ingres' painting *Madame D'Haussonville* as well as the flattening out of the two sides of the diamond. Second, flatness is determined by the specific medium used. In addition, it is not only a

matter of three-dimensionality as opposed to two-dimensionality. More importantly, it indicates the specific ways in which a medium can assist in detecting and articulating depth.

5.2 Flatness/Depth Captured: Plan, Computer Generated Perspective and Movie

Hejduk used axonometric drawings to study "flatness." In order to further interrogate the concept of flatness, the three media – architectural plan, computer generated perspective and movie – will be introduced to this study. It is not merely to test and understand if the Diamond Museum and Wall House 2 are flat in these media but also, more importantly, to how flatness manifests itself as a concept or a percept in different architectural reality.

When studying architectural space, one faces spatial compression immediately. In order to understand space, we switch back and forth among highly conceptualized media such as plan and section, and media that simulate perception in space such as photographs, perspective, and movies. Models and axonometric drawings represent both types of media, as they both possess conceptual content and at the same time present the three-dimensionality of space.

5.2.1 Plan: Depth as a Spatial Structure

A plan presents the conceptual content of a space, such as the syntactical and metrical relationship. Although some architects start design from a plan, the viewer can never

perceive a plan by chance. It is only through post-conceptualization that he/she can grasp the plan.

In a plan, we not only see the overall shape of the building but also define the whole space into units and see the relationships among them. The relationships can be topological, geometrical, or merely metrical. In terms of depth, we will refer to Bill Hillier and Julienne Hanson's *Social Logic of Space*, which provides a syntactic definition of depth. In the authors' terms, a space can only be considered deep with regard to another space if intervening spaces must be passed through in order to reach it. The more the intervening spaces, the deeper this space is. Hence, according to Hillier and Hanson, depth indicates a spatial structure.

5.2.2 Computer Generated Perspective and Movie: A Static Point of View versus a Moving Point of View

The medium of computer generated perspective catches a fixed point of view, and multiple shots reveal differences in all the views. However, a movie shows a continuum of views. In other words, a photograph indicates a static point of view while a movie exhibits a moving point of view. All three of these media have significant implications for the concept and the percept of spatial depth.

Hejduk focused on the idea of depth as a visual perception. He examined how flatness could be seen through the eye. However, what he emphasized as the properties of flatness were those perceived from a fixed eye. Either the lacking of perspectival effects or the flattening

out of the two sides of the diamond does not involve a change in viewpoint. They can be easily captured and tested in a single computer generated perspective.

When one's view point is no longer fixed, a comparison between the previous scene and the current scene assures depth in a different way. This is where sequential computer generated perspectives and movies come in. The theory behind this notion comes from James Gibson notion of occluding edge in the *Ecological Approach to Visual Perception*. "An occluding edge is an edge taken with reference to a point of observation. It both separates and connects the hidden and the unhidden surface, both divides and unites them. The same can be said of the far side and the near side of an object. As the point of observation moves in the medium, or as the object moves, the hidden and the unhidden interchange, or the far side becomes the near side and the reverse." (Gibson 1979, 308) Although he stresses the aspect of the consistency of sight, occluding edge can still be related to the perception of depth. When a surface appears or disappears at the occluding edge, depth is reassured. In this case, the perception of depth results from not only seeing it but also, more importantly, comparing the scenes at the occluding edge. Above all, depth is perceived at a moving point of observation. Therefore, the key of sequential computer generated perspectives and movies is that they provide comparisons among the individual views. Depth/flatness is registered in the differences among the views.

5.3 Flatness in Space

5.3.1 The Flattened Spatial Configuration

> "The introduction of the right angle within the diamond field permits the possibility of the observer to begin the trek of the diamond confronted with continual expanding encompassment. The conclusion permits the thesis of maximum extension from the maximum compression; that of seeing space perpendicular to the observer's vision; that of seeing laterally the hypotenuse."
> (Hejduk, 1985, 49)

In the case of the Diamond Museum, flatness is registered in what Hejduk calls "the diamond configuration." He has drawn diagrams illustrating the uniqueness of the diamond shape in embedding flatness. As previously discussed, the diamond configuration embeds a perspectival effect whereby the two sides of a diamond appear to flatten out onto the hypotenuse when the observer either approaches the building from the exterior or looks at the building from the inside. However, this immediately raises a paradox when the space of the Diamond Museum is perceived from within. When the observer is situated within the space, he/she cannot see the two sides of the diamond, let alone the perspectival effect of the flattening out of the two sides. What he or she sees is only the interior partitions. As a result, the perception of visual flatness gives way to a perception of changing views (Figure 5.4).

According to James Gibson, changing views may indicate depth. The depth of space reveals itself while the surfaces behind appear or disappear at the occluding edge.[1] The perception of depth instead of flatness is captured by sequential shots of the interior space in an experiential manner.

Figure 5. 4 Changing Views in Diamond Museum C

More importantly, when one looks at the space as a structure, depth becomes a syntactic rather than visual idea. If we accept Bill Hillier and Julienne Hanson's definition of depth and regard each consistent view at the occluding edge as one step, depth rather than flatness is even more obvious, as in the case of Diamond Museum C. By "consistent view," we mean that no surfaces appear or disappear at any occluding edge within the view frame. Moreover, the path across the hypotenuse is the deepest transverse path in the layout and thus deeper than the path along the hypotenuse.

It seems that, as diagramed by Hejduk, the diamond configuration is flat on a conceptual level as well as on a simplified perceptual level. In fact, the actual space of *Diamond Museum C* is visually deep. If this is true, then where is flatness registered in the building?

[1] James Gibson's idea of occluding edge is in *Ecological Approach to Visual Perception*.

The answer to this question lies in how the observer perceives the space as a diamond instead of a square. The perception of a diamond shape or a square is interchangeable, depending on the observer's orientation. In this circumstance, the orientation of the inner partition walls becomes crucial in that these walls suggest an underlying grid whereby a viewer must employ as his/her default orientation. It is only through perception of the rotation of the fins with respect to the periphery that the observer can recognize the shape of the whole space as a diamond rather than a square. (Figure 5.5) Retrospectively, one perceives a tension between the flatness as defined in relation to the handling of the hypotenuse and his/her path within the diamond space. When moving from one corner of the diamond to the opposite corner, the angle sustained between the observer and the two side corners is flattened out exactly as the observer crosses the hypotenuse (Figure 5.6).

Hejduk refers to flatness with regard to how a space looks.[2] Within the space, one can depict the possible depth of view in the shape of an isovist area, the space that is visible by an observer from a given point.[3] The mechanism of defining an isovist is by "projecting" lines of view from the position of the observer. The line will stop once it hits an eye-level object. As a result, a shape is defined in the plan, which shows a visible area. As shown in Figure 5.7, sequential analysis of the plan of the *Diamond Museum* shows that changes in isovist areas are

[2] When discussing Frank Lloyd Wright's Guggenheim Museum, Hejduk says:"To me, that is a really unique, abstract, *flattened* space… purely 20th Century in its flatness. It's a Cubist flatness; there's no perspective in that space… no vanishing point. Because of the way that light fills that space – that spherical cavity – you *never* see shade or shadow, and like a sphere drawn without shade or shadows, it flattens out into a circle." From "Medieval Surrealism" *Inland Architect*, 25(2): pp. 10-29; March 1981.

[3] Isovist Theory, originally developed by Michael Benedikt in the mid-70's. Isovist Theory has been incorporated into Spatial Syntax theory by John Peponis and his students at Georgia Tech., where they've created a software program called "Spatialist."

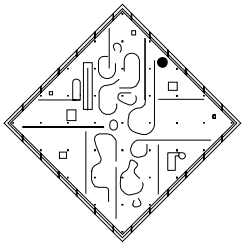


Figure 5. 5 Rotation Indicated by the Fins at the Periphery

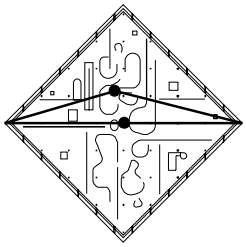


Figure 5. 6 The Flattened Hypotenuse

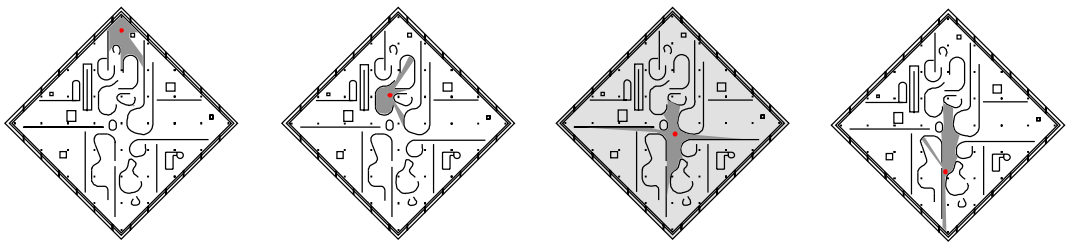


Figure 5. 7 The Flattening-out of Isovist Area at the Hypotenuse

frequent in the interior space and even more drastic when one approaches the center. It is only at the hypotenuse that an observer sees the flattest (most expanded) view.

Moreover, Hejduk's Diamond Museum exemplifies tension between the periphery and a neutralized center. In *Diamond Museum C*, the articulation of the center and the periphery involves two different kinds of wall elements: freestanding walls, which have been offset from all major grids in the manner of Mies; and curvilinear walls, which have been bent around to define enclosures. Freestanding walls not only create simple boundaries but also possess a strong indication of direction. Curvilinear walls form enclosures and challenge the orientation. A situated observer occupying these regions would perceive him or herself with no other frame of reference or orientation than the unfolding of the surrounding curves. In the Diamond Museum, freestanding walls are positioned near the periphery while curvilinear walls are in the center. The strong sense of direction creates tension on the periphery as the 45-degree rotation is foregrounded. When the direction is neutralized by the curves in the center, tension disappears. As a result, the observer experiences the neutralization of spatial tension at the center of the diamond, and flatness is extended to the collapse of spatial tension. Although the space itself is deep in terms of syntactic structure, the space is flattened by the change in the experiential character (Figure 5.8).

5.3.2 The Temporal Dimension of Flatness

In the case of Wall House 2, flatness is also registered in what Hejduk calls "the diamond configuration." Hejduk mentioned how the major wall of the wall house picks up the

hypotenuse of the diamond structure. He points out, "the wall also emerged in plan from the Diamond plan diagrams. That is, the hypotenuse of the diamond became the wall in plan." (Hejduk 1985, 59) Wall House 2 resembles the Diamond Museum in that one retrospectively

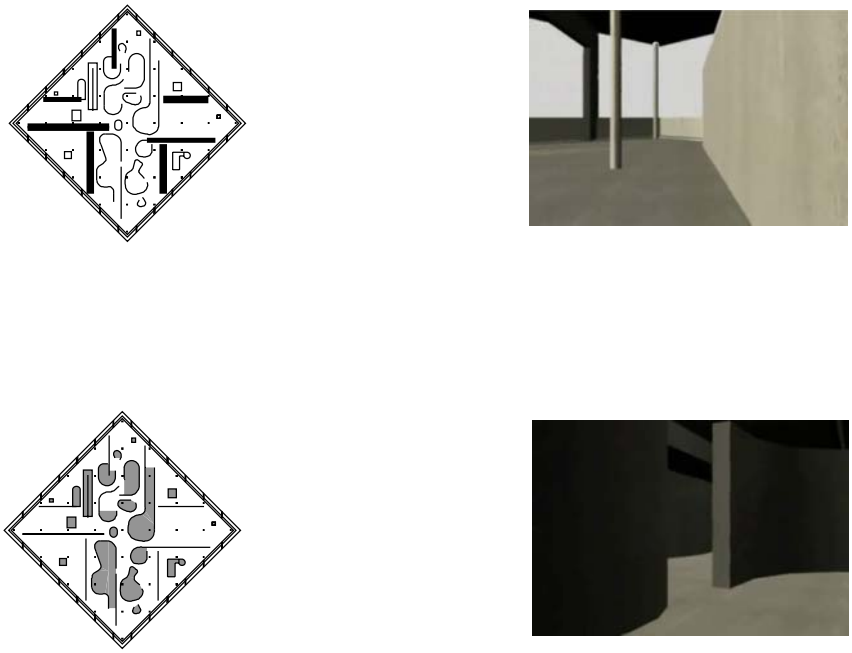


Figure 5. 8 Orientation and Disorientation

recognizes that the wall is situated as the hypotenuse of a latent diamond shape.[4] In the Diamond Museum, the space is flattened onto the hypotenuse (the diagonal), whereas in the Wall House Series, the space is flattened onto the wall. The former is an empty space while the latter is a solid object with other architectural elements built around it. (Figure 5.9) In both the Diamond Museum and Wall House 2, tension is compressed onto the hypotenuse configuration.

[4] This point of view was confirmed by Professor Diane Lewis in an interview.

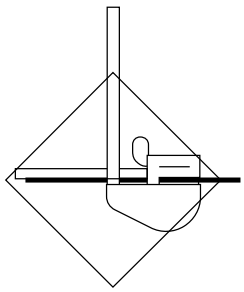


Figure 5. 9 The Diamond Configuration of the Wall House

Examining the spatial structure of *Wall House 2*, one still finds considerable depth. Because of the highly controlled route, the units of space are organized like beads on a string. The wall, which registers flatness, is just one point on the string. One realizes that flatness in *Wall House 2* is again not a syntactic idea.

In Wall House 2, flatness is literally registered as the visual quality of the flat wall, which resonates with its surroundings. When observing the built Wall House in Groningen, the Netherlands, Renata Hejduk said "the flatness of the land and the lake brings even more attention to the idea of the wall." Flatness is then emphasized by the forced frontal views of the wall. The wall and the spine of the corridor form a cross so that the viewer has to approach the wall frontally from within. The corridor, through which the wall is approached, is syntactically shallow, as it is almost a uniform space when represented according to the rate of change of occluding edges. However, the deep perspective of the corridor and the procession within the corridor create the notion of depth. Therefore, the perspectival and temporal depth adds tension to the flatness of the wall while the syntactical flatness resonates with the flatness of the wall (Figure 5.10).

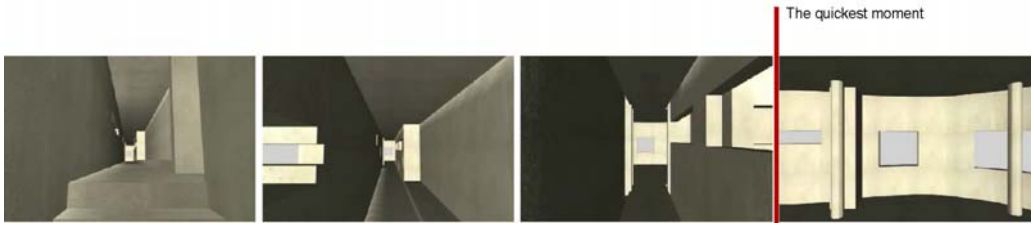


Figure 5. 10 Approaching the Wall

Most importantly, in Wall House 2*,* spatial flatness extends to temporal flatness: the fleeting moment of the present. The underlying reasoning of this extension is that both the flat spatial setting and the fleeting moment are compressed transitions. In an interview with Donald Wall, Hejduk explained the extension from flatness to the moment of the present in the clearest way.

> Hejduk: This is the moment of the hypotenuse of the diamond; it is here that you get the extreme condition, what I call the moment of the present… It's here that you are confronted with the flattest condition. It's also the quickest condition, the fastest timewise in the sense that it's the most extended, the most heightened; at the same time, it's the most neutral, the most at repose.
>
> … At first there 's a sense of a perfectly neutral condition. Then when you begin to penetrate, it becomes kinetic and dynamic.
>
> Wall: Internally active and externally at repose.
>
> (Hejduk 1985, 90)

Temporal flatness is subsequently recaptured as a sequential experience produced around the wall. The darkness of the corridor adds perspective, depth, and temporal delay to the approach, in contrast to the fleeting moment defined by the wall. When viewed from the dining area, the wall becomes a frame that cuts through the dark corridor.

5.4 Chapter Conclusion

Flatness is foregrounded in Hejduk's drawings and architecture. Depending on which medium is used to embed the concept, flatness can be a visual effect, a syntactic property, or a temporal attribute. The interpretations of flatness in different media vary even if they refer to the same concept. However, the manner in which works of art are interpreted determines which features of each medium are foregrounded. Hejduk's drawings function as a projection system that catches the most peculiar angles. His architectural spaces function as both conceptual and experiential constructions. With regard to the medium of space, the interpretation of flatness becomes even more intriguing. It would be tempting to argue that flatness refers to visual and perceptual qualities of space that can arise independently of syntactic depth: thus, we can conclude the analysis of Hejduk's work as a case study in the way in which visual and syntactic structures of space interact in architecture.

Furthermore, the above analyses suggest that flatness does not refer to visual properties that can be readily observed from some particular point but rather to those that can be retrospectively understood after the observer has experienced the space. The understanding

of flatness as a configuration involves the process of externalization. In the Diamond Museum, one has to retrospectively understand the collapse of the depth of space from the collapse of tension at the hypotenuse of the diamond. The spatial structure is finally externalized when it evolves to the neutral ideas of rotation, center, and periphery. These ideas do not affect the body either in a literal sense or in an extended sense, so the challenges disappear. The space can thus be examined objectively as exemplifications of concepts. The same can take place in Wall House 2. The wall exemplifies the flattest moment of present. However, one has to retrospectively put the pieces of the experiences together and understand the structure in order to understand how the fleeting moment is flat.

The relationship between the Hejduk's drawings and designs of architectural space is interesting, as he exercised the idea of flatness in both. He even uses the similar strategy of rotation. However, the difference in the two media compelled him to follow different rules in order to register flatness. In drawing, Hejduk exploited the rules of projection. In architectural space, Hejduk manipulated the illusion in perception. Thus, the link between Hejduk's drawings and architectural space is formed more so at the level of perception than at the level of construction. That is, it is the perception of flattened space, not the construction of the flattened space, that links the work in these two media. Although rotation is used in both cases, it follows different perceptual rules.

The difference between the medium of drawing and the medium of space highlights the issue of the observer's position. In drawing, the observer's point of view is fixed although he/she may move his focus in the picture plane. In space, the observer may either stay at a fixed point of view or move around, so he or she is able to perceive depth differently,

depending on the position. From a fixed point of view, the duration of time only provides different situations of the same perspective. From a moving point of view, depth is seen from various perspectives. The duration of time not only provides a more complete collection of views of the space but also an environment in which one can understand the space as a structure that can never be seen from any viewpoint.

CHAPTER 6
POETRY: OTHERNESS IN THE BODY

Abstract

Hejduk's twenty-one poems on paintings will be examined. The aim is to show how body, as opposed to narrative, was a consistent theme in Hejduk's poems on paintings. On the one hand, body is described through its physicality and spatiality. On the other hand, the poems may exemplify, in a metaphorical way, a sensation of seeing, touching, or feeling in the way a body or a situation is described. The poems themselves, as a medium, may also provide sensations such as rhythm. Sensation is then registered between the poems and the bodies of the readers. These sensations challenge both their bodies and mind while the audiences are reading the poems. Further, otherness will be studied as a sentiment embedded in Hejduk's poems, which will lead to the discussion, in later chapters, of how concepts emerge from experiential and logical aspects of space.

In the book, *Such Places as Memory* (1998) Hejduk takes an intriguing approach to paintings, prints, photographs, sculptures, and film stills as well as real buildings and cities: by writing poems about them. Why would an architect such as Hejduk bother to write poetry? One hypothesis, regarding the significance of these poems within the overall body of his work, is that they function as a language for articulating architectural intentions. If this is the case, then the poems can also serve as lenses through which we can better understand his architectural designs.

In the previous chapters, we studied the media of painting and architectural drawing in relation to the understanding of architectural space. Paintings and architectural drawings are visual forms. Architecture is also a visual form, at least in part. To treat insights gained from the appreciation of paintings as elements of an architectural design brief could lead to a direct transfer of visual motifs from paintings into architecture. This could easily become too literal, and too iconic; it could lead to a more superficial treatment of architecture's own mode of constructing space. The poems mediate this relation. They allow the placing of a distance between the paintings and architecture, and a more abstract rethinking and re-structuring of spatial and formal motifs.

Following the theme of the previous chapters, this chapter focuses on Hejduk's poems on paintings rather than on those on other forms of art, such as film stills and photographs. Although both this chapter and Chapter 3 link painting and architecture, they differ in terms of approaches. In Chapter 3, we seek to explore how intentions are embedded visually in paintings and how Hejduk's architectural space responds to these intentions. Hejduk's reading of paintings is discussed through his architectural space. This chapter, however, will

explore how Hejduk's poetry and his reading of paintings are related, and then examine how they manifest in his architectural space. That is, this chapter will analyze how Hejduk's reading of paintings is addressed through his poems, which will be considered conscious devices of his readings of paintings. Therefore, the medium of poetry functions the same as the medium of architectural drawing. Both of them are working media in which Hejduk clarifies his readings of paintings. If the intentions of reading the paintings are consistent or related, we will be able to identify a theme in the medium of Hejduk's poetry. The intentions will be further explored in terms of how they are embedded in the poems, especially in terms of space. The ultimate goal is to use this information to determine *if* and *how* this intention of reading paintings and writing poems is embedded in the construction of architectural space.

6.1 Tracing the Paintings in the Poems

Among the eighty-three poems in his book, *Such Places as Memory*, Hejduk dedicates twenty-one to paintings. The artists of these paintings range from Italian primitives such as Giotto to modern artists such as Edward Hopper. The book, however, presents only the poetry and not the paintings. Hence, the first task of this chapter is to identify the paintings.

The titles of the first twenty-one poems, except for one, reflect the names of the artists. Thus, the main task is to determine which painting of a specific artist is alluded to in the specific poem. All poems in question refer to figures and settings, which provide evidence of a link between the poems and the paintings. By comparing similar characteristics in both media, I attempted to identify the paintings that the poems allude to. So far, I have

identified sixteen poems as possible matches with paintings, some still open to interpretation. The list of these poems and their related paintings follow, with the unsolved ones followed by a question mark. The sequence of the poems follows the one in the book.

1. *Annunciation*, Leonardo da Vinci, *The Annunciation*, 1472 (Figure 6.1) (Whiting 1992)
2. *Saint Anne Content*, Leonardo da Vinci, *The Virgin and Child with Saint Anne*, 1510 (Figure 6.2) (Leonardo 1956; Whiting 1992)
3. *A Dutch Interior*, Johannes Vermeer, *The Guitar Player*, 1672 (Figure 6.3) (Vermeer 1995)
4. Duet, (Not identified)
5. *Without Interior*, Jean-Auguste-Dominique Ingres, *La Grand Odalisque*, 1814 (Figure 6.4) (Ingres 1984)
6. *To Madame D'Haussonville*, Jean-Auguste-Dominique Ingres, *Comtesse D'Haussonville*, 1845 (Figure 6.5) (Ingres 1984)
7. *On a Bridge*, René Magritte, *Homesickness*, *Domain of Arnheim, Collective Invention, Les Jours Gigantesques*, *Gonconda, Empire of Lights,* 1941 (Figure 6.6) (Magritte 2003)
8. *Oslo Room*, Edvard Munch, *The Day After*, 1894 (Figure 6.7) (Munch 1971)
9. *The Metronome*, Henri Matisse, *The Piano Lesson*, 1916 (Figure 6.8) (Mattise 1993)
10. *France is Far*, Edward Hopper, A number of etchings and paintings (1920-1939) (Figure 6.9) (Hopper 1971)
11. *Nature Morte*, George Braque, *Studio*, 1949-1956 (Figure 6.10) (Braque 1995; Golding 1997)
12. *A Monster Slain*, Paolo Uccello, *Saint George and the Dragon*, 1455-1460 (Figure 6.11) (Uccello 1992)

13. *A Birth*, Sandro Botticelli, *The Birth of Venus*, 1485-1486 (Figure 6.12) (Botticelli 1989)
14. *Silk of sprigs*, Sandro Botticelli, *Allegory of Spring*, 1477-78 (Figure 6.13) (Botticelli 1989)
15. *An Umbrian Passage*, Giotto (Giotto di Bondone), ten selected pieces of fresco from Arena Chapel (Figure 6.14) (Giotto 1993) (Giotto 1993)
16. *Olive Trees in Ochre* (Not identified), Duccio (Duccio di Buoninsegna)
17. *Tuscan Wheat* (Not identified), Paolo Uccello
18. *Saint Ursula's Dream* (Not identified), Titian (Tiziano Vecellio) or Giogione (Giorgio Barbarella)
19. *Creation of the Animals Before Braque*, Tintoretto (Jacopo Robusti) (Figure 6.15) (Titoretto 1985)
20. *Berlin Winter Mask*, Breughel (Pieter Brueghel the Younger) (Figure 6.16) (Delvoy 1990)
21. *Eros* (Not identified), Bronzino (Agnolo Bronzino)

Some poems relate to one single painting. They are *Annunciation* (Figure 6.1), *Without Interior* (Figure 6.4), *To Madame D'Haussonville* (Figure 6.5), *Oslo Room* (Figure 6.7), *The Metronome* (Figure 6.8), *A Monster Slain* (Figure 6. 11), *A Birth* (Figure 6.12), and *Silk of sprigs* (Figure 6.13). The other poems are of various degrees of complexity in terms of defining the noted paintings.

The poem, *Saint Anne Content* (Figure 6.2), is about two paintings by Leonard da Vinci, a draft in charcoal and the other the final painting. The keys to identifying the related poem and painting are the finger of Saint Anne pointed upward in the first painting and the presence of the lamb in the second. However, the last three lines of the poem, which

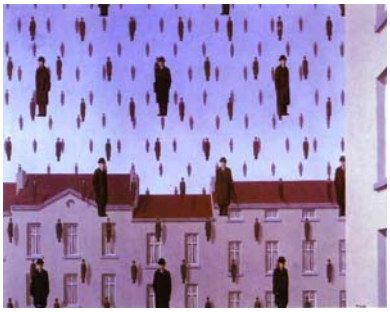
Figure 6.1 Annunciation

Figure 6.2 Saint Anne Content

Figure 6.3 A Dutch Interior

Figure 6.4 Without Interior

Figure 6.5 To Madame D'Haussonville



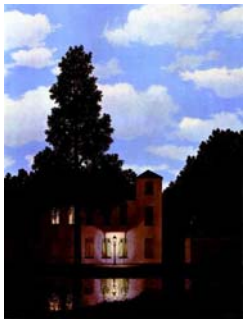


Figure 6.6 On a Bridge

Figure 6.7 Oslo Room

Figure 6.8 The Motronome

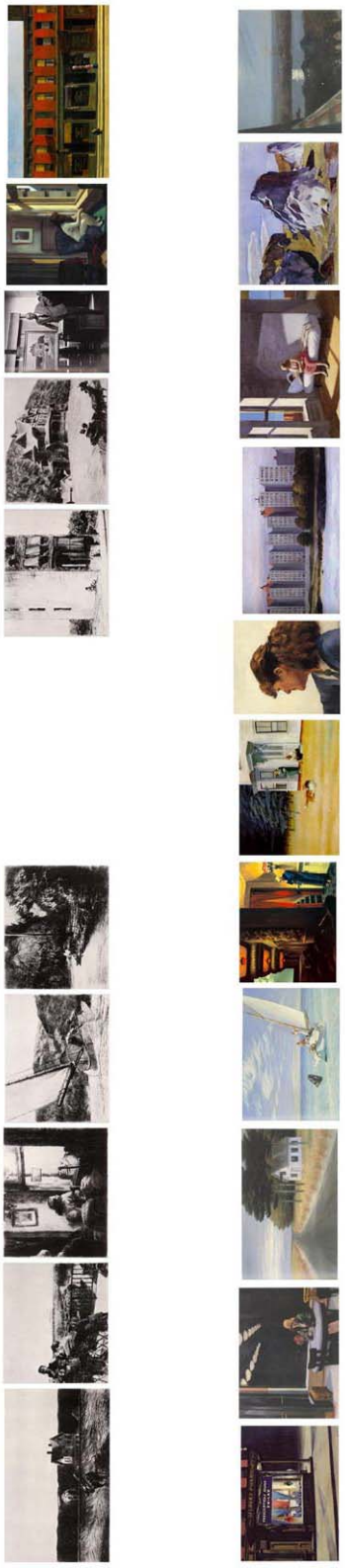


Figure 6.9 France is Far

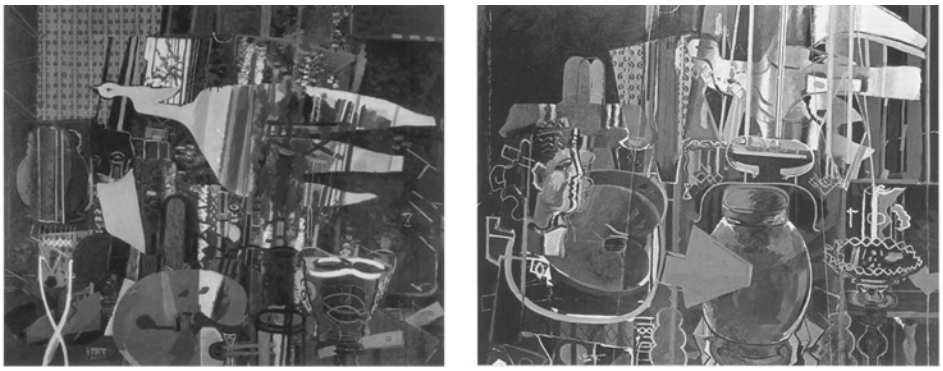


Figure 6.10 Nature Morte

Figure 6.11 A Monster Slain

Figure 6.12 A Birth

Figure 6.13 Silk of Spring

Figure 6.14 An Umbrian Passage

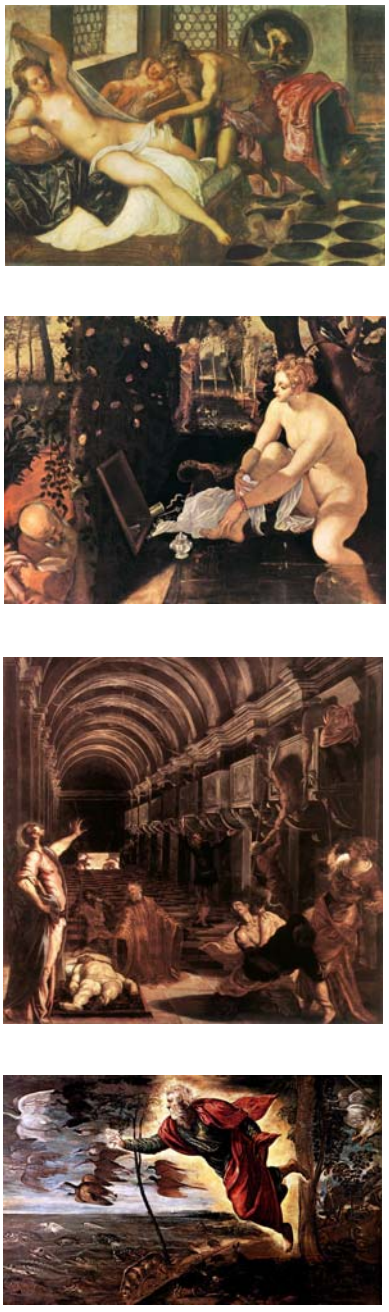


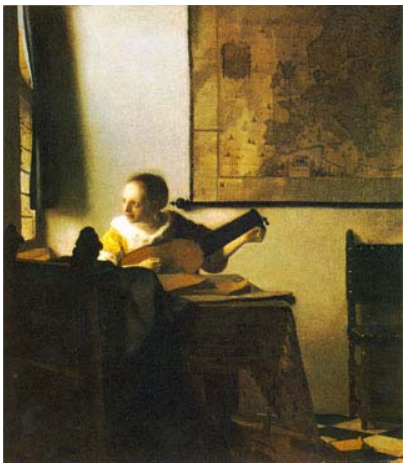
Figure 6.15 Creation of the Animals Before Braque

Figure 6.16 Berlin Winter Mask

mention an angel, have no counterpart in either of these two paintings. Thus, is it an imaginary reference to the painting by Hejduk?

> a golden angel goes forward
>
> backwards
>
> wings wrapped as a shroud
>
> (Hejduk 1998, 7)

The painting found to be the most closely associated with *A Dutch Interior* (Figure 6.3) is *The Guitar Player*. The poem mentions the producing of a sound through elaborating how a string is touched. Two of Vermeer's paintings depicted a stringed instrument: *Woman with a Lute* (1663) and *The Guitar Player* (1672) (Figure 6.17) (Vermeer 1995). The latter was chosen as more closely related due to its references to movements such as sliding on, holding, and releasing the strings, whereas the former appears to depict a lady adjusting strings. However, one unsettling inconsistency is the poem's mention of a mandolin rather than a guitar.



a. Woman with a Lute (1663)

b. The Guitar Player (1672)

Figure 6.17 Two Possible Vermeer Paintings for "A Dutch Interior"

The poem *On a Bridge* (Figure 6.6) is consists of two parts, the first half describing René Magritte's *Homesickness* (1941) and the second half composed of every few lines seemingly dedicated to a different painting: *Domain of Arnheim, Collective Invention, Les Jours Gigantesques*, *Gonconda,* and *Empire of Lights.*

France is Far (Figure 6.9) (Hopper 1971), which consists of twenty-two etchings and paintings and one photo, pushes to the extreme the tendency of Hejduk to refer to multiple paintings in one poem. In *France is Far,* a number of paintings are alluded to by their titles within the poem. For example, "early Sunday morning brown" refers to *Early Sunday*; "solitude is a place" refers to *Solitude*; "ground swells are of gelatin" refers to *Ground Swell* and so on. Some paintings are referred to through the similarities with other painters' works. For example, "Vermeer was looked at" refers to *Automat* (1927) because it is similar to Vermeer's *A Girl Asleep* (1657). Both paintings depict a girl sitting in front of an empty chair (a published argument.) "Although Léger could have painted her" might refer to *Summer in the City* (1949)

because of the similar settings in both paintings: one person sitting while the other is lying. As is usually the case, his poem alludes to other paintings by depicting the key objects. Following Renata Hejduk's suggestion, I perused the Hopper collection (published by Harry N. Abrams, Inc. of New York), which Hejduk owned in the seventies. The book about the Hopper collection of etchings and paintings was published by Harry N. Abrams, Inc. in New York, revealed a very interesting finding: the etchings and paintings described in the book are in exactly the same sequence as Hopper's collection. This finding will be discussed later in this chapter.

An Umbrian Passage (Figure 6.14) is composed of selected pieces about a series of frescos from Arena Chapel by Giotto. Three stories are told in the original frescos: 1) the story of Joachim and Anna, 2) the life of the Virgin, and 3) the life of Christ. Giotto devoted six pieces to the story of Joachim and Anna, ten pieces to the life of the Virgin, and twenty-four pieces to the life of Christ. Each piece portrays a scene in the stories. In Hejduk's poem, only a small number of the pieces are referred to. Two out of the six portray the story of Joachim and Anna, two out of the ten the life of the Virgin, and six out of the twenty-four the life of Christ (Figure 6.18) (Giotto 1993).

Creation of the Animals Before Braque (Figure 6.15) relates to allegorical and religious paintings. It maintains a structure similar to that of *On a Bridge*: the first half of the poem is dedicated to one single painting while the second half is dedicated to several paintings. The major painting is *Vulcanus Takes Mars and Venus Unawares*, painted in 1553. The second half writes about three paintings: *The Bathing Susanna* (1560-62), *The Discovery of St. Mark's Body* (1562-66)

and *Creation of the Animals* (1550). The first three lines and the last two lines of *Creation of the Animals Before* Braque are revealing. The poem begins like this.

Jacobo of Venice nods
his approval his
skullcap loose
(Hejduk 1998, 53)

As we know, the Venetian painter Tintoretto's (1518-94) true name was Jacobo Robusti. Hence, the poem actually starts by introducing the painter. The last two lines of the poem end like this:

Torcello women scrub the cross
widows walk to wind mills
(Hejduk 1998, 53)

The ending could refer to religious paintings because of the presence of the cross. However, no relationship has yet been determined.

Berlin Winter Mask (Figure 6.16) is based on reading Pieter Brueghel the Younger's (1564-1638) paintings. The poem is half solved at this stage. Two paintings are described in his poem: Pieter Brueghel's *Netherlandish Proverbs,* painted in 1559, and *The Battle Between Carnival and Lent,* painted in 1559. However, this poem may be alluding to other paintings as well since some of the activities in the poems are not depicted in either of these two paintings.

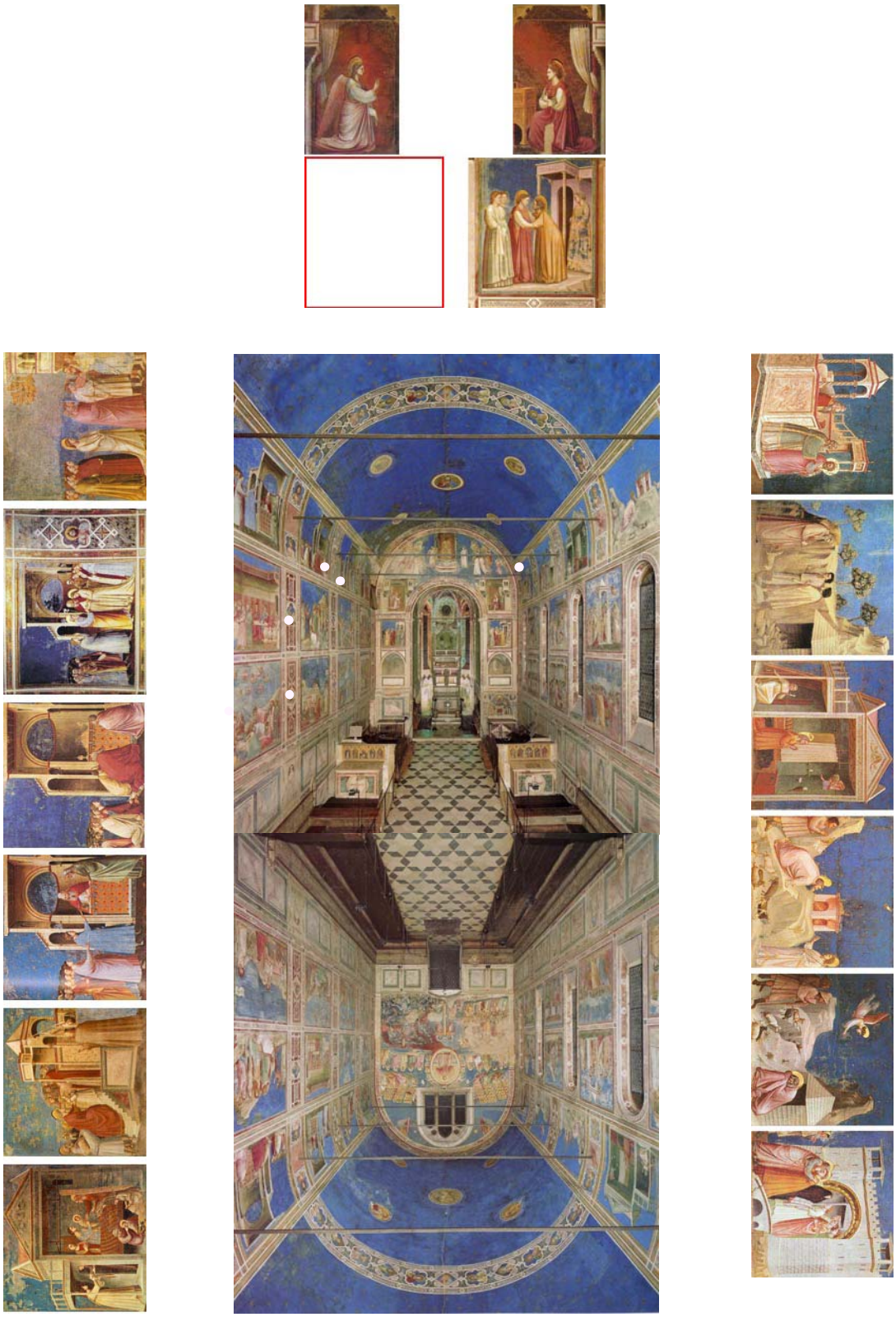


Figure 6.18 Giotto's Frescos at teh Arena Chapel

Since not all the twenty-one poems have been matched, the following analyses will be based on the sixteen matched poems. The objective is to identify the characters in these poems and to understand them with regard to their relationship with space. The study in this chapter will serve as the basis for discussion in the next chapter, which will analyze Hejduk's work as it relates to the medium of architecture. The analysis of the readings of Hejduk's poems should lead to an understanding of his architectural intentions.

6.2 The Accentuated Body

Hejduk's poems on paintings invite two different kinds of readings. On the one hand, one can read his poems as they do other poems, without seeing the paintings. This kind of reading totally depends on the medium of poetry. On the other hand, one can put the poems and the paintings side by side. The intentions of the poems are foregrounded in contrast with the rich visual aspects of the paintings. The poems suggest "a way of seeing" the paintings.[1] This chapter will focus on the second kind of reading. The purpose is to study how sensation is constructed in Hejduk's poems through physical bodies as well as through extensions of bodies so that feelings are raised.

[1] In John Berger's terms.

6.2.1 The Body and the Narrative in Paintings

Except for two cases, almost all the paintings that Hejduk wrote about have illusionary representations of real objects. The two exceptions are Henry Matisse's *The Piano Lesson* and Braque's *Studios.* However, these paintings still portray deformed figures rather than absolute abstract forms. The occurrence of figures has the potential of stressing the fleshiness of the body and the narrative relationships among the body.

Interestingly, since the body and the figurative narrative are illustrated in the paintings, we will be able to understand if Hejduk has chosen to stress one aspect in his poems rather than another, or if his poems are determined by the most obvious quality of the paintings. A choice indicates consciousness, so there is intention.[2]

Most of the paintings to which Hejduk alludes intensely depict the fleshiness of the body, primarily the female body. Such a feature is illustrated in Jean-Auguste-Dominique Ingres' *La Grand Odalisque*, Botticelli's *The Birth of Venus,* Tintoretto's *Vulcanus Takes Mars and Venus Unawares,* and *The Bathing Susanna.* These paintings depict fleshy, naked female bodies. In *La Grand Odalisque*, a naked odalisque is lying in a bed-like setting with no other figures around. Appearing like an object in a still life setting, she is inviting the viewer to watch her. Her face turns, and she appears to be looking at the viewer, creating a connection between the seer and the one being seen. In the other two paintings, the introduction of male figures adds another level of tension to the pure fleshiness. The seeing and being seen is constructed within the painting. For example, in Tintoretto's *Vulcanus Takes Mars and Venus Unawares,*

[2] This argument comes from a discussion with Dr. Sonit Bafna.

Venus is letting Vulcanus look at her body, while in *The Bathing Susanna,* an old man is peeping at her body. Thus, the embedding of seeing and being seen within the painting produces even more tension on the female body. Whereas Tintoretto's paintings are about revealing the body, Botticelli's *The Birth of Venus* is about covering the body, the painting capturing the moment right before the body is covered. Tension is created on Venus through the covering and the revealing of her body.

Some paintings depict the dressed female body, such as Leonardo da Vinci's *The Virgin and Child with Saint Anne*, Botticelli's *Allegory of Spring*, Jean-Auguste-Dominique Ingres' *Madame D'Haussonville*, Johannes Vermeer's *The Guitar Player,* and Edward Munch's *Oslo Room*. Vividness is rendered through color, texture, and light. The poses of the females in the paintings are either elegant or content, both of which create a distance between the viewer and the painting, or private, which create a sense of closeness between the two.

In some cases, the body is both the dominant subject and the theme of the narrative in the painting, so body is foregrounded in a dual manner. Leonardo da Vinci's *The Annunciation* not only renders lively bodies but also represents a story of pregnancy. It combines the visual depiction of the body with a narrative of the body. Although Giotto's fresco from Arena Chapel is less vivid in terms of the illusionary rendering of the body, the narrative is ultimately about the physical suffering of Jesus. George Braque's *Studio* depicts a bird in space through its different body conditions. Paolo Uccello's *Saint George and the Dragon* depicts the moment when Saint George pierces the Dragon's ear with his sword, which portrays the killing of a body. The other paintings by René Magritte, Henri Matisse, Edward Hopper, and Breughel do not attract strong attention to the physical body.

As opposed to the body, different levels of narrative are carried on in these paintings. Among the paintings that Hejduk writes about in his poems, the narratives range from public narratives to private narratives to symbolic meanings without stories. By public narratives, we are referring to those that consist of shared knowledge of the audience. For example, some paintings are associated with Christian legend, such as Leonard da Vinci's *Annunciation* and Giotto's frescoes at the Arena Chapel. Some paintings are associated with classical myth, such as Botticelli's *The Birth of Venus*. In all of these paintings, the narratives are obvious. By private narratives, we are referring to those about the specific individuals in the paintings. These narratives are not shared knowledge, so it is the settings and the gestures of the figures in a painting that suggest the narrative. The paintings leave something to the viewer's' imagination. Examples can be found in paintings such as Vermeer's *Guitar Player* and *La Grand Odalisque*. Some paintings are seemingly depictions of everyday scenery. They may embed even more vague narratives, but at the same time, raise stronger emotions in this vagueness, or ambiguity. The best examples of such paintings are Edward Hopper's works which we will discuss in detail later in this chapter.

Some paintings are symbolic by virtue of exploiting the relationships among their figures. For example, in René Magritte's surrealist work *Homesickness*, a winged man in a tuxedo and a lion are on a bridge. The setting of the bridge symbolizes a transitional situation. The gestures of the man and the lion suggest a strong inner emotion in a hopeless situation, standing and feeling homesickness. No story is told, but an emotion is symbolized in this painting. Some paintings even lend forms of themselves to symbolic instead of illusionary representations. (By "illusionary representation," we are referring to figures that are

reconstructed in such a way that they provide a visual effect of being seen in the real space. By symbolic representation we are referring to the abstractions of figures, so they are still recognizable without the visual effect of being seen in the real space.) Two examples of such paintings are Henri Matisse's *The Piano Lesson* and George Braque's *Studio Series*. Compared to other paintings, the narratives in these paintings are even harder to retrieve. The difficulty not only lies in the symbolic representation of the figures but also in the disappearance of the illusionary space in the painting.

6.2.2 Hejduk's Choice: Body in the Attenuated Narrative

Despite the large range of narratives in the paintings, Hejduk did not focus on telling complete stories in his poems. Instead, the presence of bodies in Hejduk's poems is in a background of the fragmented narrative. In addition, the figures possess intense sensuality. The depictions of texture, color, light, and shape directly address the bodies rather than the narrative. Thus, Hejduk's poems capture the sensuous moments but not the entire stories of the paintings.

Furthermore, just because Hejduk stresses the body in his poetry does not indicate that he chooses the body and ignores the narrative. In fact, it is one specific moment in the narrative that fully charges the body; that is, the body becomes intense because something important is about to happen or is happening. It is through these intense moments registered within the body that a story is implied. Like the bird in Braque's *Studios,* the sensuous moments are captured as the complete story flies throughout the field of vision.

Let us take, for example, the paintings with the strongest intentions of narratives and see how Hejduk proceeds to write about them. Among his twenty-one poems, ten allude to religious or allegorical paintings. They are *Annunciation*, *Saint Anne Content*, *A Monster Slain*, *A Birth*, *Silk of sprigs*, *An Umbrian Passage*, *Olive Trees in Ochre*, *Tuscan Wheat*, *Saint Ursula's Dream*, and *Creation of the Animals Before Braque*. The poems regard the paintings very closely for their textures, colors, expressions, and in particular, the bodies.

The strongest case can be found in *An Umbrian Passage,* in which Hejduk writes about Giotto's frescoes at the Arena Chapel. The narrative is dramatically fragmented. For an audience who has some knowledge of Christian legends, the story might be understood as the story of Joachim and Anna, the life of the Virgin and the life of Christ. However, the scenes in the poem are constructed with fragmented details rather than statements of parts of the narrative.

tree growth from stone
Joachim's sadness stuns
shepherd's suspicion incite
the leaping dog
lambs sniff hard earth
in front of the hut
his vision is observed |
a kiss is given near
the bridge by the gate

black shrouded woman waits |

bridal procession enters

an Umbrian passage |

a finger slips into a ring |

a flute is blown |

why does the angel beckon

the way to Egypt |

white ribboned wrapped

body of Lazarus

set to an upright

two boys replace the lid |

celebrate his coming Jerusalem

a prisoner is taken embraced

by golden Judas |

all winged creatures fluttered

on that day of gambled robe

ears hand covered in lamentation |

the soldiers slept as he left |

(Hejduk 1998, 48)

"Joachim among the Shepherds" is depicted in the way the trees grow, Joachim's sadness, shepherd's suspicious expression, the leaping dog, and the sniffing lambs. "The Meeting of Joachim and Anna at the Golden Gate" is registered in a kiss at the gate and the black shrouded woman waiting. "The Betrothal of the Virgin" becomes the moment when a figure

slips on a ring. "The Wedding Procession" is summarized in a blowing flute. "The Flight into Egypt" is represented in the beckoning angel. "The Crucifixion" is registered in the fluttered angels. "The Lamentation over the Dead Christ" is how the ears hand is covered. At the end, "The resurrection" is the moment when Christ left without being noticed. The only two parts that might tell the story are "The Raising of Lazarus" and "The Entry into Jerusalem."

Although the stories are fragmented, a string of sensual moments is vividly presented. One sees facial expression, hears the sound of the flute, and might even feel when seeing the finger slipping into a ring. One extreme case in Hejduk's poems is when he decreases the narrative tension while increasing the sensational tension.

Uccello's *Saint George and the Dragon* as well as Botticelli's *The Birth of Venus* and *Allegory of Spring* are three paintings that represent symbolic moments. The focus of these paintings is already distanced from the whole story as it is in three other paintings that are subjects of Hejduk's poems: *A Monster Slain*, *A Birth,* and *Silk of sprigs*. The symbolic moments become rich details in the poems. In *Monster Slain*, the moment when St. George kills the dragon turns into descriptions of the rigidity of the dragon's wings, the bloodiness of the dragon's ear being pierced, the texture of the metal outfit of St. George as well as the shape and the color of the clouds. The same happens in *A Birth*. The birth of Venus is illustrated in how Venus' body is elegantly covered, the shadow of the shell, the Baroque cape, and the aforementioned wind god Zephyrus' and his female companion's bodies intertwined. In another example, *Silk of sprigs,* the gentleness of the dancing women is rendered in the untouched flowers, the arrow is pulled gracefully the texture of the apples is honey-glazed,

the wings are made of pewter, so on and so forth. The appearances of the bodies are partial and detailed, so they provide the audience with immediate sensual feelings. We must still analyze the other eleven poems to see if share a focus on the body. Furthermore, we need to explore how the poems depict the bodies other than by referring to detailed fragments.

6.2.3 Geometrical Position and Bodily Sensation

In addition to the intense descriptions of the sensual body, Hejduk sometimes inserts geometric reference frames and projections. Hejduk has repeated one similar geometric projection in three poems. In all three cases, Hejduk uses geometrical degrees to describe the position of a body:

In *Without Interior*:

> Cyclop eye dead center
>
> to face three-quarter view
>
> …
>
> circumference spine sweeps
>
> twenty degrees southwest
>
> (Hejduk 1998, 11)

In *Oslo Room*:

> she lies two degrees
>
> down from an exact
>
> horizontal

(Hejduk 1998, 14)

In *The Metronome*:

the pendulum stuck

at thirty-two degrees

…

the wood shutters meet

the iron grille at

one hundred and eighty

(Hejduk 1998, 15)

These segments of the poems are surrounded by sensual descriptions. The fleshiness of the surrounding words contrasts with the dryness of these sentences. Interestingly, the poems incorporate the juxtaposition of geometric projection and the elaboration of details of the body. The geometrical frames imply a spatial coordination for the viewers to be situated in the field of the sensation produced by the paintings.

Interestingly, these examples depict very clear moments when Hejduk reads the painting as a two-dimensional projection. One cannot get the "dead center" position or "three-quarter view" unless defining a picture plan, nor can he or she determine "twenty degrees southwest" without this picture plan. Instead, the body depictions create an illusion of the body in real space. If structure was emphasized in Hejduk's writing about the Ingres painting, the structure that he foregrounds is in fact a two-dimensional geometrical relationship embedded on the surface of the painting. Hejduk is playing not only the conceptual against

the sensational but also two-dimensional projection (conceptual abstraction) against three-dimensional "reality" (the environment where sensation exists). The geometrical frames are rooted in the two dimensionality of the picture-plane while the sensual descriptions refer to real conditions of the body. The contrast lies not only between the dryness of the geometrical frame and the fleshiness of the body but also, more importantly, between the concept of the painting at the level of composition and the sensation at the level of figural representation.

6.3 Poetry: The Sentient Body

6.3.1 The Physicality of the Body

In Hejduk's poems, immediate sensation is generated through the direct depiction of physical bodies, described in such a way that invites the sensation of the audience while they are reading. The following three poems exemplify different levels of describing the physicality of the body. At a basic level, the description is based on the words that describe texture, temperature, weight, and so on. At a more articulated level, the description relies on a sequence. The sequence exemplifies a sensation. At a more complicated level, the description of the body involves the expectations of the mind. Sensation serves to contrast expectation so that any sensation of the body becomes strange.

The Surface of the Body

The subject of Ingres' painting *La Grand Odalisque* is a naked woman lying in a bed-like setting. Her body position is alluring in that she conceals herself while suggesting an ambiguous motion of the body: both turning towards the viewer to reveal her body and turning away from the viewer to shield her body. The actual body positions the painting depicts, however, are more inviting and direct than the painted images. Hejduk's poem, *Without Interior*, conducts an intensive reading of the body:

Lie long grand odalisque
turban askew pillow indented
cyclop eye dead center
to face three-quarter view
edge of lip diminish
to a puncture
braided hair follows
contours of ear
circumference spine sweeps
twenty degrees southwest
in shade breast armpit stomach
fur silk flesh converge
to hollow blush
brown of peacock feathers
in cave between
hand palm and leg calf

toes feel painted metal

silver cask spouts dry yellow mists

1814 is painted on cobalt blue

triangles shift as in a sea

(Hejduk 1998, 11)

Reading the poem, the audience is, in fact, led by Hejduk to touch the body along a continuous curve in the painting (Figure 6.19): the braided hair follows the contours of her ear, follows the sweeping spine, follows the shaded breast armpit and stomach, follows the surface of the suggested sexual part, follows the palm and the calf of the leg, and finally the toes. The depiction of the body is registered in its details and directness. The curve starts from the hair and seems to end at the cobalt curtain, but is directed towards the sexual body part protected by the woman's body position. Furthermore, one starts by looking at the body from the outside and ends with feeling within the body. At the beginning of the poem, "the edge of lip diminishes" is a challenge to the audience's visual sensation while, at the end of the poem, "toes feel painted metal" alerts the audience to the sensation of the woman in the painting. Because of the depiction of the texture and even the suggestion of the temperature of the surroundings, the parts of the body are not merely mentioned as names but also as parts that feel and can be felt. In other words, the body is felt within the setting. One might argue that the body is so dominant in the painting that one could not avoid writing about it. Although this may be true, Hejduk's poem does not merely write about the body but has done it in such a way that it has crated sensation. Thus, merely mentioning the toes is far less important than imagining the toes feeling painted metal.

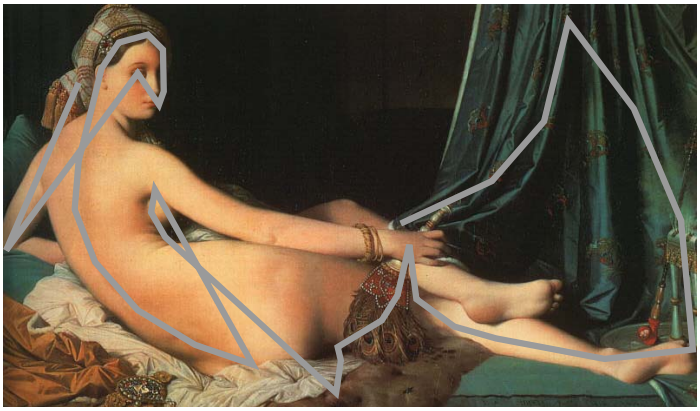


Figure 6.19 The Caressing on the Surface of the Body in "Without Interior"

The poem *Without Interior* alludes to the caressing of the body, a continuous touching on the surface, which may explain why this poem is named *Without Interior*. The body only reveals its surface while feeling the texture and temperature of its surroundings on the surface. More importantly, the poem not only represents possible sensations in the painting but also constructs a structure of sensation, that of touching, specifically through a description of the painting. In other words, the poem exemplifies the sensation of touching through the continuous movement on the surface of the body.

Caressing happens in other paintings with multiple bodies, such as *A Monster Slain*, *A Birth,* and *Silk of sprigs*. A sequence of descriptions leads the audience eyes to touch the painting as opposed to jumping from one point to another. In *A Monster Slain*, the sequence follows a "U" shape on the painting. The narrative of the poem begins at a cave, then on to the dragon, to a horse, then to St. George, and then to the background clouds. At the end, a straight line directs St. George to the princess. In *A Birth*, the sequence follows a spiral shape from the center of the painting moving gradually towards the edge. The poem starts with the

discretely covered body of Venus, moves to the shadow of the shell where Venus stands, then to a Baroque cape, on to a distanced landscape, and then to the wind gods. *Silk of Sprigs* is the opposite. In the poem, the painting is depicted from the edge towards the center, but with the center of Venus completely absent in the poem. The narrative of the poem begins with flowers at the very bottom of the painting, rises to Cupid straining with a dart at the very top of the painting, moves to the three Graces' circle dancing, moves to the shining texture of the apples, then to a Zephyr running after the nymph Clori (who transforms herself into Flora), then onto the goddess of Fecundity, and finally to Mercury at the very left of the painting. The movements on all three paintings follow a continuous line. If *Without Interior* is about caressing the body on the surface, the above three poems are about touching the bodies on the surface of the paintings.

Between the Weighted Body and the Unsettled Suspicions

Oslo Room alludes to the image of a woman lying in bed in the painting *The Day After*. However, viewers of the painting may strongly feel as if they are intruding, as the woman in the painting is not posing deliberately for the viewer but is in an unconscious state. In the poem, Hejduk describes the nuances of the woman's body as well as the setting around the body.

Limp flesh arm
and black hair
extend towards the floor
Perhaps the wrist bleeds

into the palm

or is it the

red of paint

brushed in

She lies two degrees

down from an exact

horizontal

her white blouse open

sweet breast exposed

The mattress cover

billows

from the fold

A weighted black stocking

concaves turquoise blue

silk blanket

The heavy cloth of skirt

bent under knees

pyramid thrust

The Siena bed

slides deep

Although drunk or dead

mouth nose eyes

might be kissed

(Hejduk 1998, 14)

From reading the poem, one may visualize the body through nouns such as "flesh arm," "black hair," "[bleeding] wrist," "palm," and "breast," but also experience feeling through adjectives such as "heavy," "smooth," and "sweet." The woman's body is stressed through the sensation of weight, which is created by the positions of the body parts. The arm is "limp": and hair "extends" towards the floor; the mattress cover "billows": and the Siena bed "slides deep." Moreover, the wrist that bleeds into the palm exemplifies the weight of drops of blood (Figure 6.20) (Munch 1971).

The notion of torment is embedded within the weighted body, or the body represents a result of torment, which leads to suspicion about what has happened to this woman. While reading "perhaps the wrist bleeds into the palm" and "mouth nose eyes might be kissed," viewers might be able to construct a tragic love story, arousing suspicion that the woman has been tormented. However, since they do not know what has happened, viewers are left in a mental state of doubt and uncertainty.

Figure 6.20 The Weighted Body Details in "Oslo Room"

6.3.2 The Spatial Body

Not only do Hejduk's poems emphasize the fleshiness of the body, but, at the same time, they address the body on a spatial level. This tendency is already clear in *Without Interior,* in which the flesh of the odalisque is caressed spatially. In the following poems, space plays an even more active role than it did in the previous ones in order to convey specific sensation to the audience.

Space as the Extension of the Body

Narrative not only increases the intensity of the physical body but also projects it onto space, which constructs a metaphor of the physical body. The poem on Leonardo da Vinci's *The Annunciation* renders the bodies lively and uses space as a metaphor for pregnancy. Hejduk's *Annunciation* is about Leonardo da Vinci's *The Annunciation*. The painting depicts the moment when the angel tells the Virgin Mary that she would carry the Son of God. The miraculous pregnancy results from the angel's words and Mary's vow. Similar to the previous poems, this poem has rich depictions on sensuous fragments such as the soft sound of Italian and the texture of the cloth and the banisters. The outstanding aspect of this poem is the spatial structure. The entry pointed to by the waxed banisters exemplifies the body of Mary in the process of impregnation. This contrasts with the exploded stone vault door and the putrid passage, which some could argue symbolizes another body giving birth. In this poem, the passage becomes a spatial structure that represents an extension of the physical body. (Figure 6.21)

The Angel dropped

and knelt

to ask a pardon

for its announcement

anticipating the

coming entombment

The stone vault door

exploded into

putrid passage

Italian was softly spoken

The cloth was loomed

in iris

Waxed banisters

pinioned the entry

Impregnation was complete

Joseph wept

(Hejduk 1998, 5)

Figure 6.21 The Spatial Body in "Annunciation"

Sound from Inside the Instrument's Body: A Dutch Interior

The poem on Vermeer's painting creates the sensation of hearing. However, the poem does not describe the nature of the sound. Instead, it describes a sequence of touching the strings of an instrument. Hence, the description of one sensation is conveyed through the description of another.

the mandolin intestines of
hollowed black crystals
slide against the internal
curvature
ultimately released through
the hole of stretched fibers
held
then diminished
in a tap
(Hejduk 1998, 9)

The sound is created through an increasing tension on the strings, the releasing of the tension, the holding of the remaining tension, and a subtle ending. These can be translated into different kinds of touching: sliding, stretching, pressing, releasing, holding, and, finally, a gentle striking. What is exciting about this poem is that the sound is activated by the touching of the surface, which generates the sound within the hollow body of the mandolin. Two layers of the meaning of "interior" might be implied in the title. According to one

meaning, it might represent the interior of a room. In the other, it might represent the sound that truly comes from the interior of the body of the instrument.

This poem describes an interaction between two different bodies: the fingers of the girl and the body of the musical instrument, and surface and interiority. The challenge of the girl's fingers to the instrument is through touching the surface whereas the sound generated through the interior of the body of the instrument.

The Body of Sound

Metronome is another poem that Hejduk dedicates to sound. However, it is not about the sensation of hearing, but about the sensation of sight. Sounds have volume since they are in "deep perspective." Sounds have a trace of spirals along the time ellipse. Even the silence has the volume of an oval. The links between the sensation of hearing and the sensation of seeing are established upon an isomorphic basis. The perspective exemplifies the process of diminishing, while the trace of spirals exemplifies a repetition with gradual change. The oval is a compressed closure. Interestingly, the object that produces the sound is stuck in the moment when sounds are given shapes. In this way, the shapes of sounds become the actors of the scene. Sounds do not need another physical body as they do in the poem on Vermeer's painting. Instead, they have their own bodies.

sounds in deep perspective
barreling within spirals
forward dart

upon the frame

of time ellipses

the brass metronome

cask of oak

the pendulum stuck

at thirty-two degrees

the ovality of

a silence

…

(Hejduk 1998, 15)

6.4 Bodily Expression of Otherness

At this point, we have demonstrated that Hejduk's poems address body intensively. This finding may be used as a lens through which his Diamond Museum and Wall House 2 are examined. This step will be taken in Chapter 7. However, the interrogation of Hejduk's poems still has to move deeper. It is not sufficient to claim generally that Hejduk's poems address body but the specific themes that is carried through. Looking at the literature, "otherness" draws our attention in relation to the Diamond Museum and Wall House 2.

6.4.1 Otherness

In *Mask of Medusa* (1983) the term "otherness" occurs three times. First, Hejduk relates otherness to the tension between the straightforwardness of the elements deployed in the design of Wall House 2 and something about the whole thing that is not straightforward (Hejduk, 1985, 53). In the same discussion Hejduk defines otherness as the attribute of being "inexplicable".

> Wall: There is a paradox here. The work looks simple, indeed, perhaps naïve at first glance. And that has always intrigued me. When I look at the Bye House, if I look at it in parts, it looks very naï ve: it's a window; it's a stair; it's an attached form, it's curvilinear in outline. It's all very straightforward, no attempt at obscuration in the manipulations of forms, and yet there is some thing about the whole thing coming together which…
>
> Hejduk: … has an otherness…
>
> (Hejduk, 1985, 53)

Second, when talking about the ¼ House, the ½ House and the ¾ House, Hejduk relates otherness to the ambiguity of the extended connector between the bedroom and the living elements (Hejduk 1985, 60). As we know, these houses were designed at the same time as Wall House 2, which also has an extended circulation space.

> "The extended connector between the bedroom and living elements perhaps was the ambiguous element which produced the otherness about the building."

(Hejduk 1985, 60)

Third, "otherness" is the keyword of a title on page 127 of *Mask of Medusa*. Although the word itself does not appear within the text, Hejduk offers a description of Le Corbusier's *Villa La Roche* which exemplifies the idea of otherness. He proposes that the house can be read as a church: The three-story entrance could be read as the congregation area; the balcony on the second floor as the pulpit; the black marble table might be the altar; and the little garden stones outside, under the living room, are like tombstones….

> "All great architecture like La Roche has underneath its plane of calmness, monsters. In the depth of the volumetric, monsters are down *there*… La Roche could perhaps be a program of other undertones… "
> (Hejduk 1985, 127)

Hejduk defines otherness as "the attribute of being inexplicable." (Hejduk, 1985, 53) However, the above quotes reveal that he views "otherness" as shifting among different levels. It appears as a spatial organization with straightforward yet betraying elements. Otherness is then embedded in the vagueness of the relationship among the straightforward elements. We can, therefore, suppose that otherness refers to the feeling or sense of something "else" being present in a work – another program, another quality, or another space, which does not conventionally belong to it. In Hejduk's own words, it is the "undertone." Therefore, otherness is a particular sentiment whose cause may be relational: something inexplicable in the relationship between elements.

6.4.2 Within a Strange Body

Given this working definition, we can identify otherness in other writings, and specifically in poems. One poem of the collection *Such Places as Memory*, namely *To Madame D'Haussonville* , unambiguously refers to Jean-Auguste-Dominique Ingres' painting, *Lousie de Broglie, Comtesse D'Haussonville*. This is of special significance because elsewhere Hejduk has explicitly linked this particular painting to his design for the Wall Houses. This intention is overtly articulated by Hejduk, which is cited in Chapter 3.

The painting is a portrait of a young lady. In the poem, words such as "no reflections," "sink," and "hidden" underscore the opacity of the mirror, the cloth, and the body respectively, to create a sense of innuendo. The sense of opacity, in what otherwise appears as a very clear image, alerts the viewer to the idea that something else is going on. At the same time, the relationships among body parts are aberrant. The woman's hands are too large, the breasts seem to be confined to too small a space between her arms, and her belly is oversized. Thus, it becomes poetically necessary to state that this young lady will not scratch the earth with her hands or use the tip of her tongue for infusion, as we would expect of monsters.

there are no reflections
within Madame d'Haussonville
only opacities which sink
into the cloth and folds
of a Fuseli monster
the arm holds the drapes

of a hidden birth

the flower case

perpetuates the myth

her smile shames Leonardo

red bow the wait

hands are suspended

that never scratch the earth

but tip the tongue

for infusion

dare that breast be held

As Donald Wall said after discussing a similar subject with Hejduk, "if the malignancy doesn't lie in the parts, then it must reside in the way the parts are being assembled." (Hejduk 1985, 52) This is exactly how otherness is depicted in this poem. It derives from the unusual relationships among the seemingly normal parts, with the added provision that aberrant relationships are set between the literal clarity of form and the opacity of the condition depicted (Figure 6.22).

6.4.3 The Unusual Condition

Nature Morte, describes another unusual condition, depicted in two paintings by George Braque (Figure 6.10), which Hejduk also links to the design of the Wall Houses. This intention is also overtly articulated by Hejduk, which is cited in Chapter 3. In a poem,

Figure 6.22 The Strange Body in "To Madame D'Haussonville"

Hejduk describes this moment when the gull enters the room from the point of view of the three major senses – hearing, touch, and sight. [3]

He thought he heard

it enter the still life

although the shutters

were closed

He sat in the wood chair

and waited

for the return

He dreamed of the

[3] *Nature Morte* refers to figures and settings, which provide evidence of a link between the poems and the paintings. This paper supposes that, *Studio II* and *Studio III*, the two paintings discussed by Hejduk in *Adjusting Foundations* are the ones described in this poem.

cliffs of Le Harve

The rooms somehow

were always permeated

in greens and browns

Suddenly

a lone gull

silently flying appeared

wings interweaving

within the vertical stripes

of the wallpaper

His soul was released

inside

it became white

(Hejduk 1998, 18)

The barely audible sound of the gull entering suggests a boundary around the space; feeling the greens and browns permeate it suggests its interior volume; the interweaving of the gull's wings with the vertical stripes of the wallpaper suggests a fracture of the boundary. Thus, as with *To Madame D'Haussonville*, the senses in *Nature Morte* are confronted with uncertainty and unusualness. The sound of the gull is almost imperceptible. The greens and browns are so vague that one does not know if they are supposed to be seen, touched, or smelled. The sight of the lone gull silently flying is abnormal since there should be noise from the wings' fluttering within the vertical stripes of the wallpaper. The poem thus reconstructs a collection of sensations that run against our normal expectations.

6.4.4 Fragmentation and Detachment

Hejduk has not explicitly linked *France is Far*, another poem from the same collection, to his architectural designs. One link to Wall House 2 will be suggested in the coming chapter. *France is Far* drew my attention not only because it is the longest one with the most paintings described, but also, more importantly, because both Hopper and Hejduk render isolation in their work. Isolation first takes the form of strange spatial settings and then raises the sentiment of otherness.

The poem juxtaposes twenty one paintings and a photograph by Hopper[4] in the sequence in which they were printed in the Abrams 1972 volume on Hopper's work[5]. The poem is permeated by a strong sense of detachment and fragmentation. The people mentioned seem isolated or unrelated to other people in the same scene, with the exception of two lovers kissing. The settings of his paintings involve such peculiar viewpoints and moments that even normal scenes, such as a woman looking through the window, appear abnormal. Further, the settings themselves are strongly discontinuous. In addition, the action described is often paradoxical. The combination of the place, the time, and the event in such paintings manifest otherness.

For example, "he read the paper in the park at 10 p.m." defies common sense, as reading the paper rarely takes place in a park at night. More importantly, as the poem provides a very

[4] The painting corresponding to the line "a wreath nailed to the door of an isolated brownstone" has not been identified and a blank has been left in its place.
[5] Renata Hejduk pointed out that John Hejduk had and looked at this particular volume in conversation with the author.

selective and short description of each painting, often in one or two verses, and as the order of the paintings is not linked to a narrative, readers of the poem are likely to be disoriented. There is no possibility of predicting what follows, or of retrospectively reconstructing the relations of descriptions already read.

Narrative discontinuity is complemented by the construction of a discontinuous rhythm which is depicted in figure 6.23. Each word is represented in a vertical straight line whose length is determined by the number of vowels. A horizontal strip is used to notate descriptive pace. Each bar along the strip corresponds to the description of a painting. 0-degree-bars are assigned to descriptions involving multiple sentences in multiple lines. They mark the verses over which where the pace is slower. 30-degree-bars are assigned to descriptions involving one sentence in multiple lines. 60-degree-bars are assigned to descriptions involving a single sentence and line. Where the scenes are in quick succession a feeling of anxiety is generated. In three places – at the beginning, in the middle, and at the end – the poem alludes to paintings in more detail and the pace of description conveys more tranquility. The opening scenes are pastoral, they involve a landscape, cows and a house but no people. The middle scenes describe a naked woman sitting alone with arms crossed under the evening lights; also a deserted Sunday morning. The end scenes speak of abandoned quarries and an island. Thus, when the pace slows down the feeling of anxiety turns into loneliness and emptiness. The presence of people is more directly stated in the first half of the poem. Nearer the end, it wanes or is indirectly inferred by the use of expressions such as "Vermeer was looked at", "at first she could be from Rouen yet some Canadians look American", or "Léger could have painted her". Conversely, the distant presence of France emerges three times, at the end of the second and the third slow interval and in the middle

of the second faster sequence. The first time France is associated with a memory evoked by a barber's pole, the second time it is referenced by the appearance of a person coming from Rouen and finally the third time it is referenced by sailing boats that are said to come from Le Havre. Thus, the distant presence of France fills a progressive gap created by the gradual disappearance of direct descriptions of people. Otherness, therefore, bears on more than the disjunction between parts. It also bears on the interspacing of loneliness and anxiety that arises due to the structure of the poem rather than as a direct consequence of the descriptions. A recording of the poem with the appearance of each painting is constructed in order to illustrate the rhythm in the reading of the poem. The busy scenes do not allow enough time for the audience to understand the painting or even to realize which painting it is if it is not explicitly stated, or where the description of one painting starts or ends. Thus, after several repetitive busy scenes, the audience becomes anxious. However, since the sequence in *France is Far* is pre-determined by the editor of the painting collection, but not by Hejduk, the mysterious otherness becomes surprisingly empty.

The definition of otherness as an inexplicable relation between elements places the emphasis on the syntactic characteristics of a design. The brief preceding discussion shows that the purely syntactic characteristics become charged in particular ways. Thus, the opposition between the clarity of figure and the opacity of condition, or the enmeshing of feelings of anxiety, detachment and isolation, appear as semantic orientations which drive syntactic relationships in particular ways. The analysis that follows seeks to identify a similar link between syntactic relationships and semantic charge in architectural design.

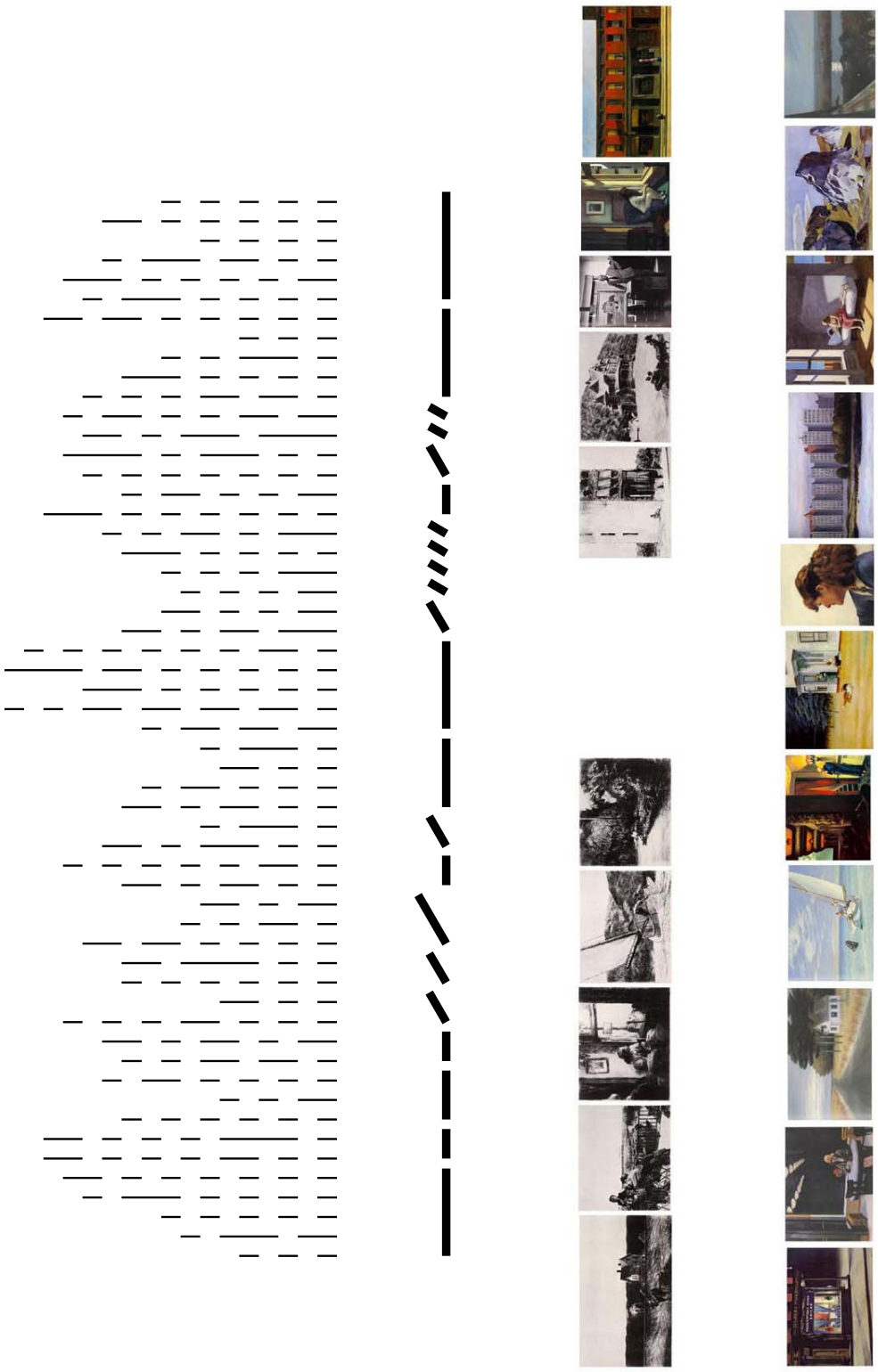


Figure 6.23 Rhythm in "France is Far"

(AVI, 690MB, he_weiling_200505_phd_france.avi)

6.5 Chapter Conclusion

Let's go back to the question of why Hejduk writes poetry. If creating a work of art demands consciousness, then writing poetry is a way for Hejduk to register what he sees in paintings. The specific medium of language allows one to mention certain aspects and not others; however this is more difficult to do in visual media such as painting. A painting, particularly an illusionary painting, is a synthetic representation of reality. The artist has no control of what viewers register from a painting. However, an artist may have more control in an abstract painting than in an illusionary painting because abstract paintings distill and foreground certain visual attributes through exemplification. Thus, realistic paintings provide a number of choices of subject matter for Hejduk's poems. In this sense, his poems are notations of his reading of the paintings.

6.5.1 Intention Embedded in the Construction of Poems

Hejduk's consciousness in writing the poems on paintings resides not only in picking up the elements of the painting but also in the choice of the painting to be written about. One might be surprised not to see a poem among Hejduk's work on Mondrian's paintings but he or she would be surprised to see the paintings related to the *Wall Houses* transformed into poems. If his thinking in architecture parallels his thinking in poetry, why did he not allude to Mondrian's paintings in his poetry? The importance of Mondrian's work cannot be the reason since Hejduk devoted a considerable amount of time to his *Diamond Compositions* and also worked on his own *Diamond Series*. The dates cannot be an reason either since the poems

in *Such Places as Memory* were written between 1953 and 1996, when Mondrian was working on the *Diamond Series* (between 1963 and 1967). Thus, the circumstances were amenable to Hejduk's writing about the paintings if he had wanted to.

Perhaps the most plausible explanation of why Hejduk did not write on Mondrian's paintings resides in the differences between the paintings of Mondrian paintings and those referred to in Hejduk's poems. Mondrian's paintings are composed of abstract elements such as lines and color planes. However, the paintings in Hejduk's poems contain relatively natural or deformed natural figures. Because of the appearance of natural figures, they relate to the sensual more directly than Mondrian's paintings in terms of their contents (although we are aware that the brush strokes and the thickness of the paint are sensual in both cases). In addition, Mondrian's paintings, compared with the others, are more related to concepts such as the rotation and the tension between the periphery and the center, although they can be metaphors of the sensual. If we can draw a distinction here, we will be able to infer the tension between the manner in which Hejduk deals with the conceptual and the manner in which he deals with the sensual and with feeling. Hejduk uses different media to address the two. He uses axonometric drawings as the medium with which he experiments and develops the concepts in Mondrian's geometry and at the same time uses poems as the medium through which he explores the impact of the sensual body on feelings.

6.5.2 Poetry as a Notation of the Sentient Body

Writing about Hejduk's poems in 1980, Eisenman states, "Walter Benjamin has said that Baudelaire's writings on Paris were often more real than the experience of Paris itself. Both drawing and writing contain a compaction of themes which in their conceptual density deny reduction and exfoliation for a reality of another kind: together they reveal and essence of architecture itself." (Hejduk 1998) Thus, if reality resides in the alertness of the audience's sensations, Hejduk writes in much the same way as an artist paints.

The focus of Hejduk's poems on paintings is truly the body, both in the forms of its fleshiness and its spatial extension. The body is described through sensation, which leads to the density in Hejduk's poems since Hejduk does not address the structure of sensation but each individual sensation in detail. It is this irreducible density that plays against structural discreteness. Thus, Hejduk's poems are not strict notations, according to Goodman, because of the lack of discreteness. However, they do register an awareness of the body, which extends to the emergence of feeling and which Hejduk addresses in his architecture.

Finally, Hejduk relies completely on the semantics of the natural language in his poems. Formal elements are suppressed both conceptually and visually. Conceptually, Hejduk's poems are descriptive in that they portray the bodies of the figures rather than the relationships between them. There is no conceptual structure embedded in the poems. Visually, the creation of imagery in the poems totally depends on the meaning of the

vocabulary. No formal elements play on the paper of the poems.[6] If sensations are challenged by Hejduk's poems, they are challenged through reading, not through seeing. Thus, it is the detailed description of the body that creates a haptic experience for the audience. Furthermore, strong spatial elements are embedded in the natural language in the poems. Not only is the body surrounded by space, but it also extends into space. Evidence of this phenomenon is presented in part 3.2, The Spatial Body, in this chapter. Clearly, Hejduk's poems address the body in both sensual and spatial ways.

6.5.3 The Construction of Otherness in Poems

The depictions of the body from various aspects in Hejduk's poetry raise certain feelings. On the basic level, the body registers sensations and sensations raise feelings. It is the immediate depiction of the body that contributes to the fundamental level of sensation. In the previous discussions, feeling was frequently referred to as a mental state emerging from the experience of the bodies. Regardless of whether the experience is what the body in the poem feels or what we feel about the body, feeling unavoidably comes to us. (Here, by "to feel" we mean to receive physical sensation, but we exclude the meaning of being a physical sensation from our definition of feeling. Throughout this discussion, feeling will refer only a mental state. And not to the action of touching something (e.g., feeling a rough texture).

[6] Hejduk's poems differentiate themselves from E. E. Cummings' poems in which the visual form of the poems creates perception.

Hejduk's three poems embody the feeling of otherness, which is strongly expressed in allusions to the body. On the one hand, the body in the painting is intensely depicted and challenged. On the other hand, the body in the poem is fragmented, detached, estranged, and even tormented, as the body is stretched and deformed. The challenge to the body is then played against the audience's mind. As the viewer is surrounded with opacity, otherness is expressed in a covert manner.

Therefore, otherness is produced by the interaction among the sensations embedded in various bodies and the understanding of the structure of the poem.[7] Body carries sensory experiences so that the space around the body becomes an extension of the body or an abstract body.[8] Otherness is then aroused from the interaction between the body and the space. In this case, otherness is embedded in the structure of the description of the setting. This argument will be extended in detail in the next chapter, which provides a reconstruction of the spatial experience in Hejduk's space.

[7] This argument follows what was first introduced by Dr. John Peponis and Ioanna Spanou in a study of John Berger's writing presented at the International Conference of the Society for Literature and Science, Paris 2004.
[8] This argument follows Dr. John Peponis' study on John Berger's writing.

CHAPTER 7
SPACE: OTHERNESS EMBODIED

Abstract

We will examine Wall House 2 and the Diamond Museum to compare the way in which flatness and otherness are registered in the medium of space. The medium of architectural space is closer to sensation than the media of painting and poetry in that architectural space provides a physical experience. Based on sensation, flatness is externalized as a concept, and otherness is internalized as a feeling.

The embodiment of feeling and concept in architectural space is achieved in two ways. On the one hand, architecture provides a spatial sensation much more directly and physically than any other medium. In this way, architectural space stimulates feelings. On the other hand, architecture is a symbolic system, just as other works of art are. It expresses concepts and feelings through its structure. The former represent immediate conditions while the latter represent the configuration of the immediate conditions. The former depends on the viewer's being physically situated in the space while in the latter depends on the memory of physical presence as well as the reconstruction of that memory.

In this chapter, we will study the spaces of both Wall House 2 and the Diamond Museum. By constructing movies within the space, we will identify specific settings in the space that stimulate or symbolize feelings and concepts. The aim is to explore how feelings and concepts are embedded in spatial conditions as well as in structures and how sensation and the viewer's body mediate the space and the feelings and concepts. The focus will be on the issue of spatiality. Texture, color, sound, and temperature are intentionally ignored in the following discussion. However, light will be a part of the discussion of the spaces, as it provides an ambience for the space to be seen, even in grey scale.

7.1 The Scope

Building design is unavoidably linked to patterns of embodied spatial experience which arise according to the manner in which buildings situate subjects within a structured field of spatial relationships. Here, Diamond Museum and Wall House 2 will be described in terms

of certain patterns of spatial experience that it engenders, to prepare a subsequent discussion of whether these patterns result from the architectural concepts that govern the deployment of design language. Spatial experience depends heavily on the viewer. However, different viewers may pay attention to different aspects of the space, and their sensitivities differ as well. In other words, they gain different experiences within the same space. Therefore, the aim of this chapter is not to describe experience as a whole, a task which is in principle unachievable, but rather to identify some of the spatial structures that inhere to experience and charge it in particular ways. The description is, therefore, explicitly selective.

In order to study the space, we will use computer generated perspective and three-dimensional animation to show the devices of the spaces. In the case of Wall House 2, photographs of the real building are taken while movies of a computer model of the house are made. In the case of the Diamond Museum, since it is not built, all visual materials are computer generated. The visual materials are used to articulate the intentional situations in the space. Thus, the question is how these challenges of sensations can possibly evolve into feelings and concepts.

7.2 Experiences as Elementary Condition and Sequence

Spatial experience can be described as elementary conditions and relationships among these conditions, referred to as "sequence." Each elementary condition centers at a consistent spatial status, or spatial change. A sequence is a linear complex of several elementary conditions, each of which may exist within a very short moment in time or during a longer

time with consistent spatial change. In other words, a sequence involves relationships among these conditions. The sequence in this discussion will be limited within the boundary of sequences in physical space as opposed to sequences from mental reconstruction, such as sequences in a montage. Hence, there is always a physical path in the space through which a sequence involving duration of time and an embedded structure can be experienced.

Elementary conditions are more immediate to the viewer's body than sequence because of its emphasis on the texture of the moment. Sequence, however, emphasizes structure, which is closer to the viewer's mind and which is also embedded in the body. In fact, both elementary conditions and sequence involve structures on different levels. When a structure is involved in an elementary condition, it may or may not be literally seen in a shot of an image. The latter occurs when the structure requires looking around within the isovist from a stationary position. This is not the case in sequence because the structure is constructed across conditions. In other words, it is more difficult for one to see the structure in a single image than to perceive it after experiencing the sequence. Because of the much longer time duration, capturing the structure in a sequence requires memory. Thus, condition requires a short memory while sequence requires a longer memory.

The process of sensation triggers the construction of both concepts and feelings. It is a pattern of understanding that can well involve both the elaboration of sensations and the activation of ideas and interpretative frameworks already in the mind.

Space plays a crucial role here so local sensation is extended to a movement within configuration. Hence, space leads to both concepts and feelings, even if we leave out other

aspects around the space such as texture, color, and temperature. Feeling is associated with the sense of movement between different positions within a configuration while configuration itself is conceptual and can be understood intellectually. In other words, configuration implies not only relationships but also a potential for virtual movements between positions within these relationships. The virtual movements work as extensions of the movements of the physical body. In this way, configuration, itself being conceptual, leads to feeling.[1]

In addition to one's experience as either a single moment or sequences of moments in a space, a reconstruction of these pieces of experiences also develops. The reconstruction is, in fact, a comprehension of the relationships across elementary conditions and sequences without the actual spatial limitations. That is, one does not need to follow a single path in order to explore the relationships among elementary conditions. The mind may travel across pieces of experiences and comprehend their structure. For example, one may juxtapose two elementary conditions that are not together in real space and then elucidate the importance of their co-presence in the same building. The reconstruction of experiences is no long the experience of the space but an understanding of the space.

[1] This argument is based on what is first made by Dr. John Peponis and Ioanna Spanou in a study of John Berger's writing presented at the International Conference of the Society for Literature and Science, Paris 2004.

7.3 The Implication of Seeing: Sensational and Conceptual Elements in the Camera

In this part, we have set up a series of cameras that will document the two kinds of experiences in space: elementary conditions and sequence. The technique for this task is primarily to set a camera with a certain path in or around the building. However, this seemingly simple technique involves various elements, such as proximity of the path to the wall, the height of the camera, and the location of the target. At a basic level, these elements determine what aspects of the space draw the viewer's attention. At a deeper level, these elements formulate sensational or conceptual images of the space. The visual elements may become an illusion of what one might physically feel in the actual space. These elements may also lead the audience to perceive the form of the space in terms of abstract relationships. Thus, the visual elements of the camera must be understood first. The purpose is to explore the relationship between the mechanism of the camera and the implications of how the space is perceived.

7.3.1 Distance

A camera provides ways of seeing something. Seeing by its very nature links the registration of texture with the registration of structure. When looking closely at an object, one tends to see and touch the texture. This experience is basically on a level of sensation. When looking at something from a distance, one sees an overview of the object so that its structure can be perceived literally. Seeing a structure is the basis for understanding the spatial logic so that the experience of seeing from a distance leads to a conceptual level of seeing. This does not indicate, by any means, that one cannot reconstruct the structure in the mind through pieces

of "close shots," but the distance of seeing determines if the texture or the structure will be perceived. More importantly, the distance determines whether seeing will lead to the sensation of touching. Touching, like seeing, leads to a visual understanding of spatial relationships. The difference, however, is that touching starts from local comprehension and then may cover a larger area with the help of a memory of previous touching. Distanced seeing can cover a much broader area than touching, so the perceived spatial relationships may not need as much help from memory as they do in the case of touching.

The result of seeing with the naked eye depends on the physical distance between the viewer and the object. In the case of a camera, illusions are produced through using different lenses, which are associated with different focal lengths. When using a normal lens, one always sees objects at a specific distance more clearly than he or she sees them at a farther or closer distance. In this way, what one sees through a lens is closer to the reality of the actual distance between the viewer and the object. With a longer lens, one is able to bring objects in closer so that the texture of an object can be seen from a distance. Since the physical distance appears shorter, an illusion of intended touching can be created. By contrast, a short lens, always accompanied with a wide angle, helps one to see close objects with a wide angle more clearly. However, it creates a contradiction between looking at a wider view as opposed to a closer view, which is not the case in normal human vision. A wide angle supposedly shows a larger portion of an object so that the view is closer to revealing the actual structure. Put simply, the zooming in or out of the lens allows one to witness something clearly not only at a distance but also, more importantly, across the levels of both sensation and concept.

Lens also shows the spatial depth though focusing. Through a lens, the object in focus lies between a blurred foreground and background. Interestingly, however, a very close foreground, although not in focus, still suggests the sensation of touching. At this moment, a distance exists between the actual object of focus and other objects that can be sensed through touching.

7.3.2 Point of view

A camera defines and controls a spectator's point of view, defining not only how the object is perceived but also where the viewer is located in relation to this object. If the object is architectural space, the point of view then defines how the viewer is located within the space. At normal eye level, we may have different camera angles so that one might look straight ahead, upwards, or downwards. Single views can also be rotated so that one can look around or up and down. We can change the eye level and repeat the previous actions as if we were giants or dwarfs.

Although viewers inside a space do not have to touch the wall or ceiling, they cannot avoid touching the floor. Hence, the feet are the point from which the sensation of touching originates. Usually, viewers look from eye level when traveling in a space, creating a sensation of seeing coordinates while experiencing the sensation of touching in the feet. These two sensations overlap when the viewer looks down, but the sensations are distanced to a large extent when he/she looks up. Interestingly, they see only in the manner of a

normal lens while traveling at walking speed in a space. When paying attention to details and textures, viewers have to slow down their travel speed. A long-lens view is seldom found in either real life walking and seeing or camera shooting. The reason is that a long-lens view has already decreased the distance between the object and the viewer so that the distance changed by walking has little effect on the view.

As noted, sight can register both textures and structures by zooming in and out. However, touching registers more local conditions, and hence, contains limited input compared to seeing. This information is crucial in our study in that it defines what the viewer pays attention to. More importantly, it pertains to how the two sensations, seeing and touching, are either distanced from each other, or overlap.

7.3.3 Framing

In general, a frame is two-dimensional. When a frame is foregrounded the viewers is alerted to look at a flat plane. Composition, which is based on two-dimensional understanding of the picture plane, becomes important in a frame. Frame is different from framing in that framing does not necessarily emphasize the two dimensionality of the view. One can minimize the viewer's awareness of the frame so that what one perceives is a three-dimensional view instead of a flattened two-dimensional picture.

The basic task of framing is to include element that are intended to be seen or to exclude elements that are not, despite a fixed angle of view. Although much more may be seen from

a normal point of view, the purpose of the framing processes is to exclude elements in order to foreground the presence of certain relationships. The second task of framing is to organize the subjects in certain compositional relationships. Seeing a view is not equal to seeing the framing of the view. Once a frame is determined, a view has a center and a periphery. The interplay between the pictorial elements of the frame and the existing spatial relationships in the subject becomes a task. To some extent, framing is a conceptual statement through a perceptual device.

From an experiential point of view, framing determines if the object is partially or completely included within a composition. Framing is quite important, particularly in a composition of multiple objects. When all objects are completely included in an image, they tend to appeal to the viewer as visual relationships among objects. The spatial relationships can be strong enough to dominate the composition, or they can be vague enough that the play of a single object dominates. For this reason, we have strong compositions and weak compositions. When the objects are partially included in an image, they tend to reveal themselves in a "broken-down" mode. That is, they might not attract the viewer as objects but instead, as abstract shapes. The relationship among these shapes begins to play an important role since no individual object exists. Thus, framing in fact determines which visual element, the object or the abstract shapes, plays the leading role in a composition.

7.3.4 Duration and Travel Speed

Duration situates the viewer in a time dimension, indicating how long the viewer stares in the same direction. It also indicates how fast one moves in the space. Once the staring time is long enough, the picture becomes psychologically still. Duration also creates the sensation of rhythm, which may work independently of what one understands the real object is. For example, in a room that is divided into a dark and a light section, one can shoot much longer in the light room than in the dark room, creating a rhythm of dominating light. In the same way, the musical division at La Tourette can be shot to create an equal rhythm. For this reason, if the rhythm of a space needs to be studied neutrally, the camera must maintain the same speed while traveling in the space.

7.3.5 Sequencing

Sequencing challenges the mind, essentially involving the relationships among what is seen. It is the organization of scenes, involving the interplay among all the elements that have been discussed previously. Thus, sequencing is not merely about a sequence in time, but about which scenes are connected and which structures are retrieved by the viewer. Two kinds of sequencing are first, sequencing organized by a physical space in which one can literally follow the sequence while moving around in the space; and second, sequencing organized in the medium of film in which one can turn physically disjointed scenes into adjacent ones. The latter is essentially a montage, which represents much more than what is seen literally. It is a statement of what has been seen and understood. However, sequence

has two aspects. One, the necessary aspect, determines the sequence, such as the route, if there is no other choice in space; the other, the exploratory aspect, provides multiple possible sequences, such as the rotation of the camera. Both aspects of sequence are integrated and create an utterly continuous experience in space and time.

7.4 Experiences Documented: Neutral View and Intended View

We will use a camera to document visual experiences within a space. The word "document" does not refer to a non-subjective view of the space. In fact, the nature of the camera is indeed subjective in that it is directed by the personal intentions of the photographer, so the photographer controls the audience's involvement in a work. In other words, what viewers see in the pictures is what the photographer intends them to see; thus, by taking pictures or creating movies, the photographer creates a conscious viewing experience.

Use of the camera will take place on two levels. The first will consist of pictures constructed from normal points of view as if the viewer had no intention or attraction to anything specific, referred to as a "neutral view," and only the most obvious characters in the space will be captured. The second level will consist of pictures with specific intentions that carry more interpretation of the space. Even though everyone in the space will not have the same view, the pictures at least prove that certain spatial situations do exist, referred to as an "intended view." By controlling the camera, a photographer may achieve different levels of consciousness within the space. Both the neutral and the intended views will be used to capture elementary conditions and sequence.

The neutral view takes eye level paths throughout the space. The camera always targets the horizontal front when traveling. The lens is set at 45mm. The purpose is to create as objective an experience of the space as possible. The intended view takes specific settings of the camera.

The camera shots used represent a tiny fraction of the possible views engendered by the design; they document not only (specific) perceptions, but also insights, depending on the choice of viewing positions, angles and frames. The selection of shots is evidently subjective, in that it is not governed by an a-priori method. Still, more neutral shots that depict more evident conditions will precede shots which focus upon significant details. The function of the shots, however, is to lead to a reconstruction of the principles of possible experience which, granting the initial selection of the shots, is open to scrutiny. What is fundamental to the argument is that the structure reconstructed inheres in the object; no claim is made that it exhausts the object or that it is not open to qualification depending on the selection of alternative viewing frames and trajectories. The discussion starts from the elementary conditions surrounding the major wall that dominates the design, as seen from the interior. This will become the main focus of the argument in the final sections of the chapter. The elementary conditions associated with the wall are then followed by accounts of other conditions and sequences in the intuitively expected order.

7.5 Patterns of Embodied Spatial Experience: Movies of the Diamond Museum

> "As the hypothetical observer approaches the architecture, the building simply becomes larger, and the observer sees more and more detail. His position is changed from that of hoverer over the object to one of the object hovering over the observer. It is as if the piece of architecture has swallowed up the hypothetical observer, as if he has become part of its internal gestation system."
>
> (Hejduk 1985, 69)

7.5.1 Elementary Conditions

Camera 1: On the Periphery (Neutral View)

When traveling along the periphery, the viewer is set in a logical system with almost all straight lines that are clear and definite. However, what one's body follows is constantly competing with what one sees from a distance as the orientation. A 45-degree rotation is formulated, not on paper, but through the contrast between moving and seeing (Figure 7.1).

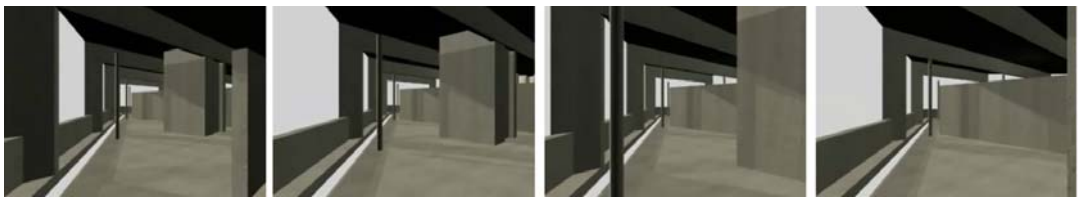


Figure 7.1 Periphery
(AVI, 72MB, he_weiling_200505_phd_periphery.avi)

Camera 2: In the Center (Neutral View)

Situated in the center, one is surrounded by curved walls so that the orientation is completely lost. Only by looking at the beams above will one relocate the orientation. The contrast between what the body touches and what the eyes see is pushed to an extreme in the center of the diamond. Actually, one is "outside" the curved walls while "in" the center. The walls all curve away from the center of the diamond so that one continues to get the sense of traveling in between objects rather than being enclosed by them (Figure 7.2). The close-up surfaces are separated by body "spikes" of space. As one turns at the center, he or she sees a spike, followed by a close surface and then a spike again. A vista cuts through the position.

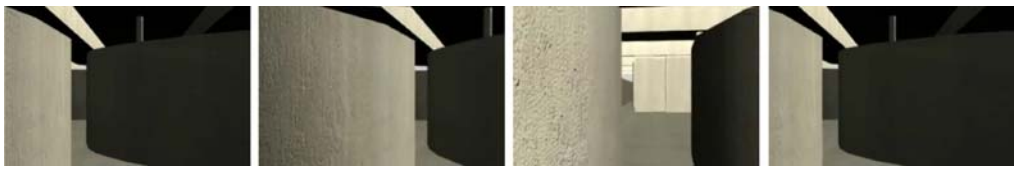


Figure 7.2 Center
(AVI, 124MB, he_weiling_200505_phd_center.avi)

7.5.2 Sequences

Cameras 3 and 4: Crossing the Diamond (Neutral View)

Two neutral views are set at eye level, targeting horizontally forward in the Diamond Museum (exhibition level). Both views take paths along the diagonals of the diamond plan,

one in the direction along that of the beams and the other in the direction perpendicular to that of the beams.

The result very obviously shows the contrast between what is near the body of viewer and what the viewer looks at. In camera 3, the viewer's body is always surrounded by curved walls, except near the end of the path. These walls force the viewer to meander around rather than take a straight path. The frequent curved turns cause the viewer not knowing where this place leads to. However, the viewer sees a consistent system of beams overhead, a way of suggesting the direction towards the other end of the diagonal. Near the end of the path, a straight wall appears, pointing along the direction of the beam system. The contrast between what is close and what is far disappears. One's immediate sensation and one's understanding of the logic of the space are integrated at this point (Figure 7.3).

Figure 7.3 Crossing the Diamond Space (a)
(AVI, 124MB, he_weiling_200505_phd_crossa.avi)

In camera 4, the contrast still exists but with a much shorter duration. Straight walls appear both at the beginning and at the end of the path. A viewer will find his or her orientation through the awareness of walking perpendicular to the beams instead of parallel to the

beams. The viewer starts from a clear system with a piece of straight wall and the beams suggesting a logical system. At the center of the path, three pieces of curved wall appear. The immediate direction near the body is challenged. However, one's body is not confused since another straight wall can be seen at a distance most of the time while he or she is traveling among the curvilinear walls. In addition, the beam system above always provides a sense of left and right. At the end of this path, straight walls re-appear so that the contrast between the immediate experience of the body and the distanced experience of the eyes disappears. In this case, the wall and the beam represent more than just structural or dividing elements. Hejduk assigned their roles in spatial experience by virtue of their different closeness to the viewer's body (Figure 7.4). The difference between the two views is indeed strong, which has to do with how dominant the curvilinear partitions are along the path.

Figure 7.4 Crossing the Diamond Space (b)
(AVI, 107MB, he_weiling_200505_phd_crossb.avi)

Camera 5: A "Near-sighted" Travel (Intended View)

We intend to create a view along the same path as camera 3, but the camera is set at waist level facing forward. In this way, the camera documents the sense of touching through

seeing. Ideally, it would be a blind man's experience. Seeing is boiled down to close-distance touching. However, a camera cannot be used to document touching. The solution, as discussed earlier, is to take close views as if one has a very limited vision in distance (Figure 7.5). Clearly, during the spatial experience, not only does one see the logical structure "hanging above," but one's body also feels the building elements with vagueness.

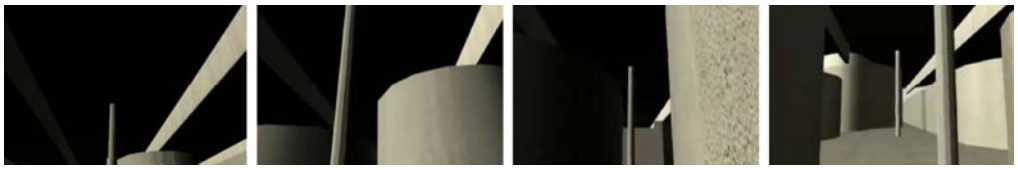


Figure 7.5 Crossing the Diamond Space (c)
(AVI, 60MB, he_weiling_200505_phd_crossc.avi)

7.6 Patterns of Embodied Spatial Experience: Movies of Wall House 2

In Wall House 2*,* otherness is embedded as a spatial construction. The way in which it is constructed in the medium of space will be compared with the way in which it is constructed in the medium of poetry. Specifically, how are torment and the estrangement of the body expressed in space? If so, how do they elicit the feeling of otherness?

7.6.1 Elementary Conditions

Cameras 1 and 2: The Wall (Figure 7.6)

We will discuss the majority of elementary conditions within sequences. The key elementary condition that we will emphasize here is the one at the wall, a condition repeated three times on each of the three floors.

The key elementary condition in the design of the house is the threshold as one goes through the wall when making the transition from the elevated access corridor into the dinning room, on the second floor. A similar transition is repeated for each of the floors as one enters use spaces coming in from the circulation core. Figure 7.6 shows successive shots taken at eye level. Vertical visual elements dominate. The free standing major wall mediates between the boundaries of the stairwell and the dinning area, with two open slits intervening. The treatment is sectional. A clear sense of cutting through the major wall arises according to the predominance of transverse narrow views at the threshold which is reached only after a rather long movement between the lateral walls of the narrow access corridor. What begins as a very narrow and deep frontal perspective, is suddenly extended to an extremely wide and shallow one, with the major wall acting as the picture plane. The wall appears to come through the space of the corridor so that the subject is placed in an unfamiliar position, at the intersection between a boundary and a path. A modified view is obtained by placing the camera in a different position to target the floor, as shown in figure 7.6. Within this view, what one sees overlaps what is touched by the feet. The full height of the vertical slits and

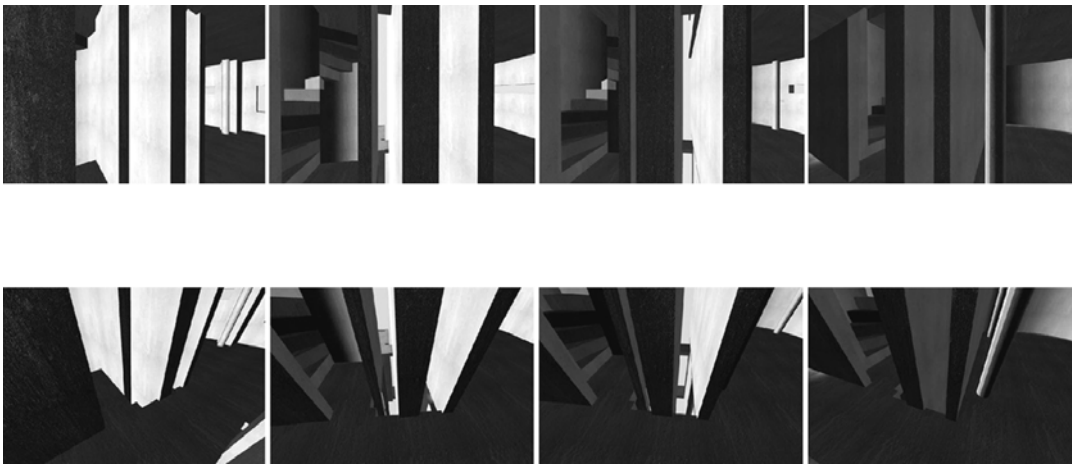


Figure 7.6 Crossing the Wall

(AVI, 144MB, he_weiling_200505_phd_walla.avi;
AVI, 135MB, he_weiling_200505_phd_wallb.avi)

the manner in which the boundaries are cut leads to an impression that the threshold is crossed through a suspended bridge. The whole body thus becomes acutely aware of the special condition of the threshold.

Camera 3: Climbing of the Stairs (Neutral View) (Figure 7.7)

A steep stairs is set at the entry of Wall House 2. Camera 1 is set to record this specific moment of climbing. The stairs are so narrow that they confine the reviewer's movement in a straight line without choice. The process of climbing is constructed from the fact that the stairs have only one run and are relatively long and that nothing but the stairs can be seen while one climbs. Thus, climbing is emphasized in a monologue.

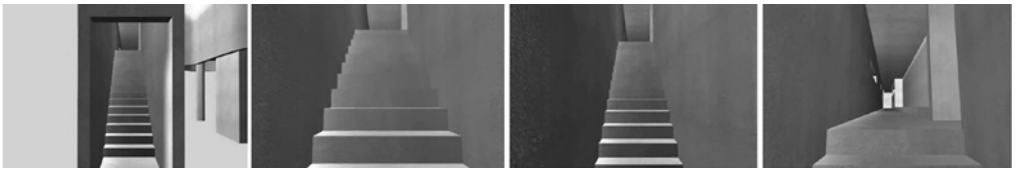


Figure 7.7 Climbing the Stairs
(AVI, 54MB, he_weiling_200505_phd_climb.avi)

7.6.2 Sequences

Camera 4: The Exterior (Neutral View) (Figure 7.8)

Figure 7.8 documents a path around the house, which appears to negate any possible involvement of the viewer. The walls create a sharp definition of the exterior, with no mediating or bridging elements. Some views are afforded through the horizontal windows at the sleeping area, but there is no point of entry. The exterior is not claimed as a garden connected to the bedroom space. The vertical openings on either side of the major wall correspond to so narrow a space that there is no possible anticipation of a human body approaching. The closure of the interior is underscored by the elevated approach corridor and the minimal manner in which the entrance touches the ground.

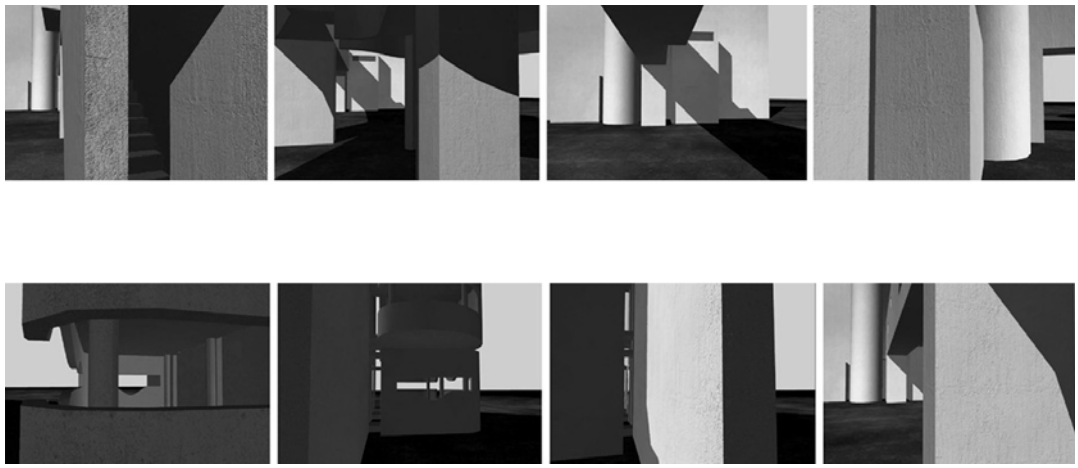


Figure 7.8 The Exterior
(AVI, 65MB, he_weiling_200505_phd_exterior.avi)

Camera 5: Entering the House (Neutral View) (Figure 7.9)

A camera, beginning at the entrance of the house, moves straight forward until it reaches the edge of the space. This view depicts what one might see upon entering the house and moving to the second floor dining area.

The space appears to be narrow and dark at the entrance. A single flight of stairs immediately confronts the visitor, forcing him or her to ascend. Since the stairs are narrow and steep, the viewer can see only the stairs but nothing at the top of the stairs, rendering it impossible to predict the nature of the space he or she is entering.

While approaching the top of the stairs, the viewer sees a long corridor with a small amount of light entering from the sides and a bright end. This corridor is about as wide as the stairs. Openings on each side of the corridor appear to be cuts in a dark tunnel, allowing little light to enter. The darkness seems to lengthen the corridor.

Two vertical openings on each side of the corridor break the darkness immediately before the entrance to the bright dining area. Between these two openings lies a large wall. However, moving from this space to the dining area, one barely notices the wall from inside since the treatment of the two openings is just the same as that of any other openings. The dining space is defined by curved surfaces and large openings. The forced directionality of movement is relaxed for the first time.

This neutral view provides a rough impression of entering the house. On a very basic level, several contrasts are formed in this path: the contrast between dark and light, the contrast between limited views and extended views, the contrast between narrow and wide, and the contrast between rigidly forced direction and the freedom of wandering. All of these contrasts are set between the entrance and the dining area, two extremes.

The contrast between dark and light is constructed through setting the two extremes at the two ends of the path while mediating in the middle. The entrance is dark. Except for a high window above the door (which is not shown in the movie), the entrance area has no opening. The dining area is light since more and bigger openings are found there. The middle consists of a dark corridor with only hints of light. At the entrance, the view is blocked by the stairs so that one's only choice is to climb the stairs without knowing what will happen

after he or she gets to the top. This situation changes once one gets closer to the top of the stairs. The end of the dining area appears in a distance with its light directing the viewer to travel. At the end, upon entering the dining area, surrounded by light, one is presented with the space outside the interior of the house. The stairway and the corridor are both narrow while the space of the dining area is wide. The former is in a rigid shape of a straight line while the latter extends to a free curvilinear surface.

The wall acts as a transition that is a constant source of contrasts between the two sides, one in which the wall draws a line of sharp distinctions, and the other in which it the sharp distinctions foreground the significance of the wall. In any case, the relationship among the wall and the conditions on both sides is linear.

In this sequence, the viewer's body is dramatically challenged from the very beginning. The body is forced to go up, but the mind is unable to decipher what will happen at the top of the stairs. The biggest challenge in terms of labor lies in the contrast and the smallest challenge is intellectual. The distance one must travel before reaching the dining area is also a challenge to the body. Due to the lengthened prelude, the corridor represents an important space rather than a mere transition or connection, and because of its darkness, it is an emphasized cut among spaces where light enters and where one may linger. Thus, these spaces, which invite one to linger, are isolated.

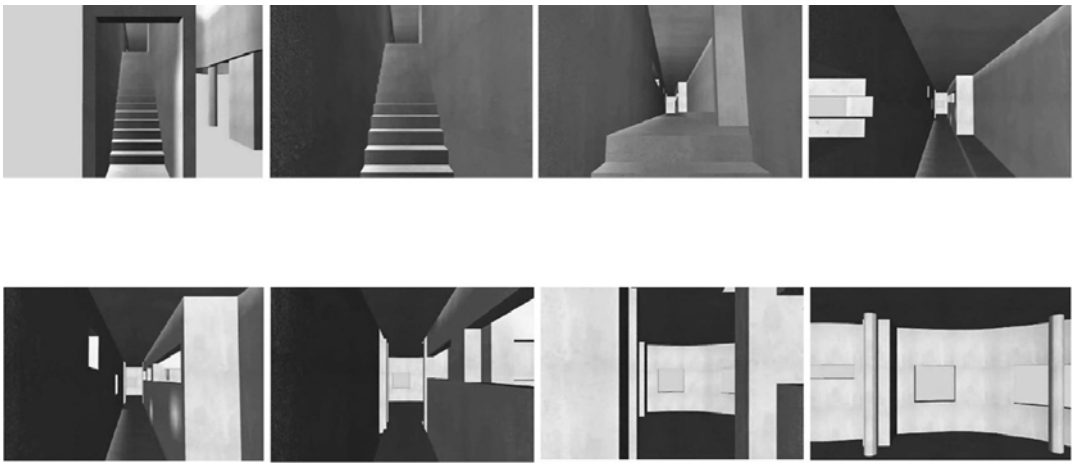


Figure 7.9 Entering the House
(AVI, 126MB, he_weiling_200505_phd_enter.avi)

7.7 Shot Juxtaposition

The juxtaposition of shots is an exercise in the mind based on a recollection of sensual experiences, ones that must take place in a linear sequence and that are arranged in parallel structure. The co-presence of shots highlights relationships among the space.

7.7.1 The Diamond Museum

View of Composition 1: Center versus Periphery (Figs. 7.1, 7.2)

Combining views demonstrates how concepts are formulated. It works after one finishes experiencing the space and then retrospectively reconstructs the experience.

Putting cameras 1 and 2 together, one understands the contrast between the two diagonal directions. One is clearer and more straightforward than the other, but exhibits less contrast between the challenge of the body and one's understanding of the space. If rotation was the intention in the translation from Mondrian's diamond compositions to Hejduk's Diamond Museum, it is articulated at the level of spatial intelligibility. The two diagonals are indeed in contrast between "meandering along" and "cutting across," with more disorientation in the former than in the latter. Grid is more present in the latter, and only unfolding in the former.

View of Composition 2: The Four Corners (Figure 7.10)

Four rotating views are generated on each corner of the Diamond Museum. The co-presence of these four views represents the contrast between clarity and ambiguity. When one faces the corners, the views are either framed or sliced by the columnar elements and the beams. When one faces the center, clarity and regularity decrease. The frames are interrupted by organically- shaped walls as well as by long straight walls that not only follow the perpendicular direction but also "float" in the regular grid. Furthermore, the co-presence of the four corner views suggests a sense of direction. The east and the west cameras show much more clarity than the south and the north cameras because most elements in the east and the west are linear. Rotation is illustrated in the perpendicular relationship between the beams and the linear walls. The southern and the northern views are challenged by the ambiguous curvilinear elements. Compared to the eastern and the western views, the distances between these elements and the corners are shortened, so it is harder to obtain a big view of the surroundings. This enhances the ambiguity of space.

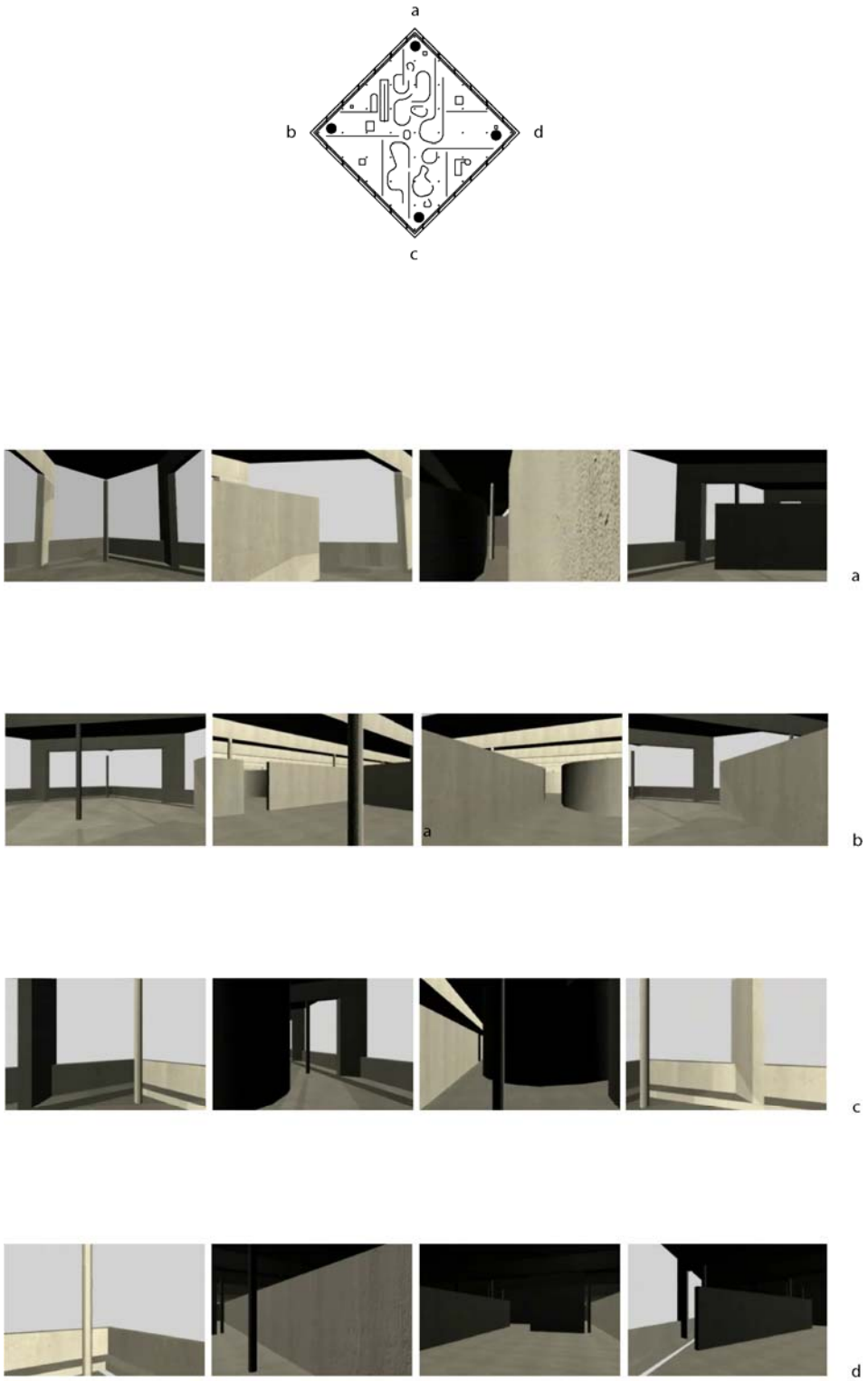


Figure 7.10 The Four Corners of the Diamond Museum
(AVI, 4MB, he_weiling_200505_phd_fourcorners.avi)

7.7.2 Wall House 2

View of Composition 1: The Two Sides of the Corridor (Figure 7.11)

Two cameras are set up at waist level, facing toward each of the side walls of the entrance corridor. In this way, the camera is able to document part of the floor or stairs along its route. As it is shown in figure 9, the visual boundary remains constant during the ascent. There are significant changes during the subsequent progression towards the dinning room. On the left, an extruded window provides an asymmetrically framed thin horizontal opening with an open side towards the dinning room and a closed one towards the entrance. The opening fundamentally negates any orienting view of the site, because the cantilevered frame blocks any visibility of the ground, and points to the horizon. This is followed by two small rectangular openings one at eye level, the other much lower. On the right, there is a long recess intended for a cupboard. This is followed by three horizontal openings at eye level in close succession. The openings never occur simultaneously on both sides of the corridor, until the threshold to the dinning room is reached; this, as was previously shown, is defined by the two pairs of vertical slits facing each other. The dinning room itself provides a generous horizontal strip window. Overall, the corridor negates transverse transparency at all points, except at the rapid succession of vertical slits dominated by the major wall. With the exception of the three horizontal windows on the right, most openings provide light but afford extremely limited views. The main function of the openings is to underscore the presence of the walls and their close proximity to the body, rather than to open up connections beyond.

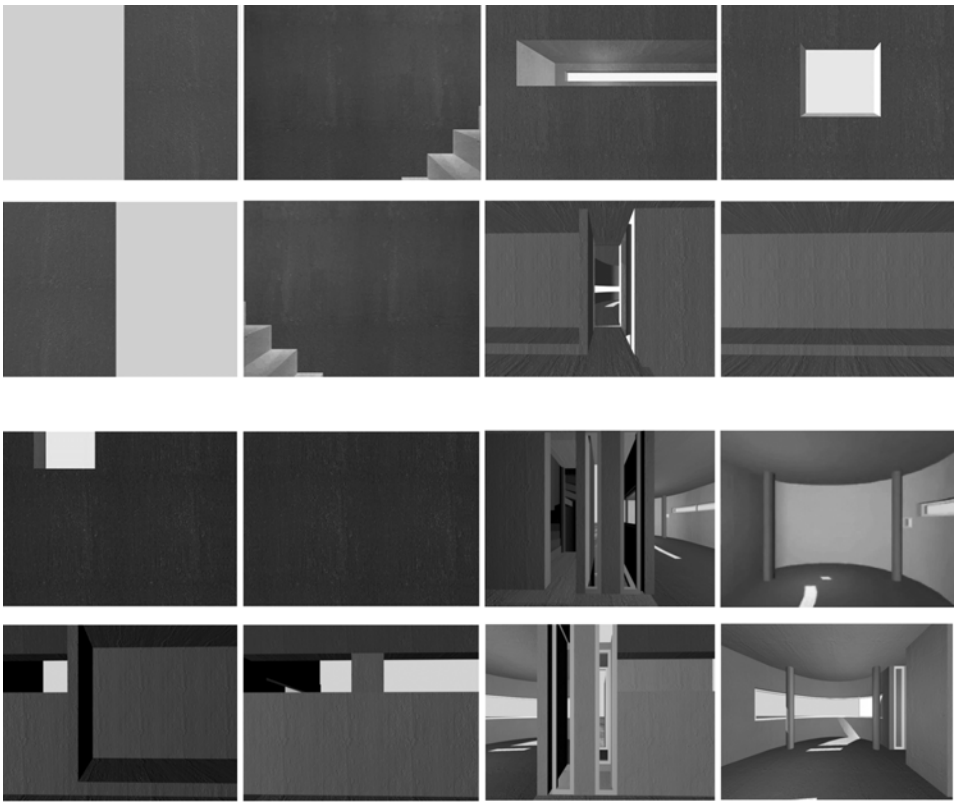


Figure 7.11 The Two Sides of the Corridor
(AVI, 145MB, he_weiling_200505_phd_twosides.avi)

View of Composition 2: Traveling Among the Major Spaces (Figure 7.12)

Rotating cameras are set in each of the three multi-level spaces: the bedroom, the dining area, and the living area. The higher the space, the freer it is. The lowest floor is essentially a rectangular space with round corners, freedom being illustrated in the free-shaped windows. The second floor is a free-shaped space with numerous openings, freedom being exemplified in the possibility of one's meandering along the edge of the space. The third floor has not only a free- shaped design but also a curved roof line. The entire space seems to float. However, regardless of how free each individual space becomes, it is isolated from

the others. Traveling from one space to another takes place in darkness; thus, each space is clear, but the connections among the spaces are not.

By convention, we consider the study room, the dining room, the living room, and the bedroom as the major spaces in the house and circulation spaces as connectors. In Wall House 2, the contrast between major spaces and connecting spaces such as light and dark, transparent and opaque, and slow and fast, is predictable. More importantly, the circulation space serves more to cut or separate the major spaces than it does to connect them.

Cameras are set up at the end of the second floor corridor at the entrance to each major room. What the camera catches is quite interesting. The continuity among the major spaces is completely destroyed by the dark and narrow circulation spaces. This separation becomes even more pronounced in the multi-level areas of the living room, dining room, and bedroom due to the physical proximity of the three spaces. The spiral staircase not only lengthens movement from one space to another but also eliminates the connections between the spaces. Because of the tedious circular travel in the darkness, the viewer is emotionally detached from the previous space and "reset" to the empty mode for the space yet to be seen. Regardless of how wide the view is through the large windows, one still remains isolated in the bedroom and the living room because the dark spiral staircase is the only way out.

In between the narrow spiral staircase and the free rooms sets a vertical wall. The intense contrast between the circulation space and the major space loads stress on the extraordinary spatial condition of the vertical cuts. The repetition of seeing the vertical cuts emphasizes its

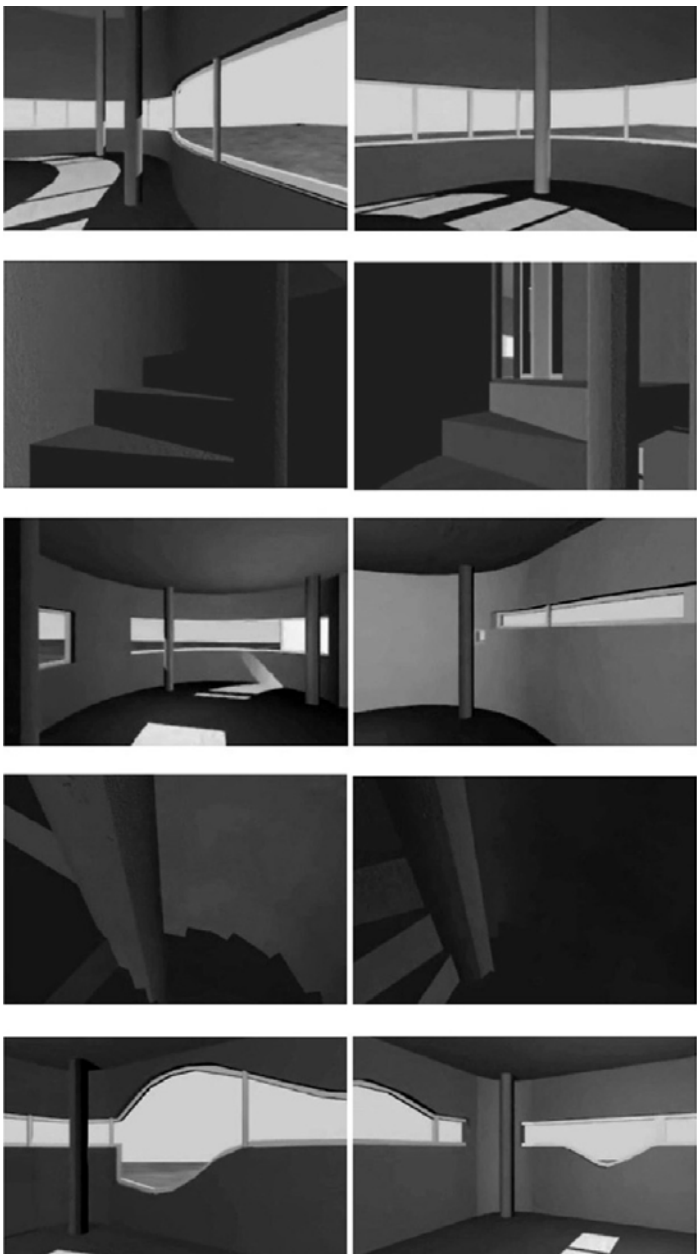


Figure 7.12 Traveling among Rooms
(AVI, 86MB, he_weiling_200505_phd_travel.avi)

importance in the space. If the wall were literally the wallpaper in Braque's painting and the viewer were the bird, the process of flying through the wallpaper would be signified in the house by crossing back and forth. This crossing is also repeated when one goes from the dining room to the bathroom and from the bedroom to the storage room.

7.8 Chapter Conclusion: Flatness versus Otherness

The question of otherness can best be set in perspective if we also re-consider the question of flatness previously discussed. The Diamond Museum and Wall House 2 are spatial articulations of Mondrian's and Braque's paintings, respectively. The primary transition from painting to architecture is the embodiment of space. It is not only that architectural space is big enough to contain human body but also, more importantly, that it provides a medium that challenges the human body. Meanwhile, the challenges to the body have also been found as the intention in Hejduk's poems. The direct depiction of the body in the medium of poetry becomes the direct challenge of the physical body in the medium of architecture, which forms the basis of sensation. Sensation leads to the concept of flatness and the feeling of otherness.

7.8.1 Condition as the Stimulation of Concepts and Feelings

Spatial challenges are registered on various levels. As we discussed before, the basic challenge is elementary conditions, which may or may not involve the eyes. They are divided into two detailed sub-levels. On one level, challenges that can be constructed in elementary spatial conditions that directly affect the body do not require sight. That is, the viewer may experience the space through touching and be challenged. For example, in the Diamond Museum, the viewer's body is either disoriented by the curvilinear walls or directed by the linear walls. In Wall House 2, the viewer's body is challenged from the very beginning when the narrow and steep staircase beckons the viewer to climb. On another level, challenges come from the interplay between what the body immediately experiences and what the eyes see from a distance. This kind of challenge is clearly shown in Diamond Museum. The beam system always suggests a consistent orientation regardless of whether or not the body is directed or disoriented. When traveling along the periphery, the contradicting information that the viewer receives between a linear movement along the periphery and the direction of the fins and walls allow one to grasp the aspect of rotation of the space. In Wall House 2, the repeated moments of crossing the big wall could never be experienced without eyes. In other words, by merely touching, one could not realize the cutting of the wall into the floor of the corridor where he or she is walking. Also, the narrow corridor, elongated by its dark appearance, creates compression that is accentuated by the manner in which the windows are framed, as if the skin of the corridor had been peeled out. The sense of compression is almost tactile.

The elementary conditions of the space alert the body and stimulate feelings through unusualness, either being unusual as direct effects on the body or being unusual as combinations of touching and seeing. The body is not plotted in an easy setting at all. In the Diamond Museum, the body struggles with the nearly unintelligible space at the center while also challenged by the rotated orientation at the periphery. In Wall House 2, the darkness of the circulation spaces is suffocating. One feels as if he or she were in a strange situation while experiencing the cutting of the big wall into the floor where he or she is walking. Walking across the big wall and feeling the cutting may represent an astounding moment within the space of Wall House 2. However, it is not a pleasant experience because the wall challenges where one stands since it tends to cut into the corridor. The narrow slices of space on both sides of the wall exemplify the action of cutting while cutting is not a pleasant experience for the human body.

The feeling stimulated at the center of the Diamond Museum is the excitement of exploration with fleeting frustration. Since the disorientation at the center of the diamond space is soon replaced by the spatial clarity at the periphery, it is not a negative disorientation but a pleasing one. The disorientation is not a fear of being completely lost any more, but rather a happier feeling of being in an embrace, or perhaps dancing. In this sense, the feeling of disorientation more strongly relates to Hejduk's poem *Without Interior* on Ingres' *La Grand Odalisque*. The traveling of the observer's body within the space becomes a caress along the curves of the building objects. During travel within the space, awareness of the rotation between the periphery and the beam structure adds even more excitement for the viewer. Moreover, the space causes tension between being hidden and being revealed. Depending on which diagonal one faces, the fins are sometimes blinding while sometimes diminishing to

almost lines. The interplay of seeing and hiding resonates with *A Birth*, the poem on Sandro Botticelli's *The Birth of Venus*.

7.8.2 Structure as an Expression of Concepts and Feelings

The challenge does not stop at the level of immediate effects on the body. When the challenges are put in a sequence, a structure is unavoidably formed. In the Diamond Museum, the contrast between the bodily experience of disorientation and clear direction coincide with the body's geometrical location of the center and the periphery in the diamond plan. In Wall House 2, the sensation of being cut continuously occurs, not only at the big wall but also in every single space. The insertion of dark circulation space isolates the living area, the dining area, the bedroom, and the study room. The whole house is cut into pieces.

Flatness Reconsidered

In both Diamond Museum C and Wall House 2, flatness was a concept exemplified in their spatial structures. In the previous studies, diagrams have shown how the theoretical percepts of flatness can be achieved when the viewer faces the corner of a diamond. Diagrams have also shown how the major wall of the Wall House picks up the hypotenuse of the diamond structure. However, through the embodied experiences of both spaces, flatness is registered in immediate sensations.

In Diamond Museum C, flatness is registered between the tension on the periphery and the neutralization of the tension in the center. Interwoven with this tension is another tension between orientation and disorientation. As a result, the viewer does not see how the corner of the diamond flattens in but experiences the collapse of spatial tension at the center of the diamond. Literal flatness is extended to a series of sensations. In Wall House 2, spatial flatness is transformed into a fleeting moment in time. Literal flatness of the wall is propagated by the repeated sensation of being cut.

The understanding of flatness as a structure involves the process of externalization. In the Diamond Museum, one has to retrospectively understand the collapse of the depth of space from the collapse of tension at the hypotenuse of the diamond. The spatial structure is finally externalized when it evolves into the neutral ideas of rotation, center, and periphery. These ideas do not affect the body in either a literal or extended sense. The challenges disappear. The space can thus be examined objectively as exemplifications of concepts. The same occurs in Wall House 2. The challenge of the body disappears when one discusses how the house exemplifies the flattest moment of the present. One has to retrospectively put the pieces of experiences together and understand the structure in order to understand how the fleeting moment is flat.

The Expression of Otherness in Wall House 2

Hejduk has talked about Wall House designs in terms of occupying the threshold and this is certainly a main characteristic that makes Wall House 2 unusual. The vertical stacking and

separation of the living spaces requires that inhabitants frequently cross the major wall thus becoming exposed to the threshold condition and the opposition between the experiential qualities described earlier. There is an additional sense of detachment since the generous views offered from the living spaces, coupled to the reduction of connections to a strongly controlled minimum, sets them into the spatial equivalent to monologues. The entire structure of "circulation – boundary / threshold – living spaces" is reached through a protracted movement initiated at a conspicuously unrevealing entrance, essentially a boundary one has to climb over, and subsequently extended to permit a minimum anticipation of where one is going and a maximum awareness of being bounded and framed. Anxiety is thus built into the manner in which the structure is first approached. Over time, the entire arrangement is likely to generate more than just an awareness of the flow of time between a past, represented by the circulation spaces, a future represented by the views from the living spaces, and a present represented by the experience of the threshold. In this house, remembrances of everyday life cannot be stitched together into a single image whose experiential scaffolding would be provided by the interplay of cross views between spaces or the setting up of a dialogue between one view of a relation and another. The alternative most likely here is a collage of discrete images in the mind, images of spaces remembered either entirely present or entirely absent, but hardly ever seen from a different point of view. Rather than merely associating the past with circulation, therefore, we might associate the whole house with a particular structure of memory, one that foregrounds discrete episodes rather than flow, framed images rather than multiple points of view. To discuss the consequences of this regarding the interplay between the more literal and the more imaginative dimensions of memory, its more recollective and its more reconstructive moments is beyond the scope of the present argument.

Parallels between the house and the poems can, therefore, easily be drawn. The relation of clearly delineated parts is imbued with a certain experiential opacity, much as with *To Madame D'Haussonville*. The continuous stacking of polarized spatial conditions over time would create the sense of an ambiguous interpenetration of spatial frames of reference as described in *Nature Morte*; if in the latter death is connoted by the gull getting trapped in a painter's studio, here a lesser sense of loss would continuously be connoted by the irrevocable perceptual absence of living spaces hardly left behind. As with *France is Far*, it is the space between episodes that is negated. In addition, as with *France is Far,* three moments of tranquility, the living spaces, are separated by moments of more rapid change. The ensuing tension between embodied experience and mental image would be similar whether we take the house or the poems as our point of departure.

Such parallels confirm that otherness can be expressed in different symbolic media in a way which potentially preserves its specific connection to feelings such as loneliness or anxiety. In the case of Wall House 2, we can at least say that otherness is associated with a quality of uncanniness arising from the simultaneous encounter with the familiar and the unfamiliar. The parallels also lead us to become aware of the alternative means of expression associated with different media.

CHAPTER 8

CONCLUSION
INTENTIONS CLARIFIED IN THE MEDIUM OF ARCHITECTURE

In this thesis, we have discussed and analyzed other forms of art, such as painting (Mondrian's *Diamond Compositions*, Braque's *Studio Series*, and others), architectural drawing (Hejduk's axonometric drawings), and poetry (Hejduk's poems on paintings) and used them as lenses through which Hejduk's *Diamond Series* and *Wall House Series* can be read. The interdisciplinary nature of this research justifies the methodology, which has involved an intense investigation into the notion of "meaning" in a specific medium.

The meaning of a work, however, does not reside in its relationships with other art forms; thus, this thesis treats each medium separately while it seeks to establish relationships among them at the same time. It will consider the existence of tension between works in different media from the point of view of design language rather than reference, determining how a designer constructs a language that can respond to specific intentions by drawing inspiration from the language used in other media. Although this thesis has analyzed such notions in a number of works, it will conclude by revisiting only the Diamond Museum and Wall House 2 and limit it to a formulation of work within the medium of architecture.

8.1 The Notion of "Charge" in Hejduk's *Diamond Series* and *Wall House Series*

In Chapter 3, we discussed the notion of "ends" and "means" in the design process, the former referring to "what" will be achieved while the latter to "how" it will be achieved. Although this difference may seem quite clear, "end" and "means" can be more clearly understood if the distinction between "what" and "how" is explicitly defined.

In the book *Patterns of Intention*, Michael Baxandall proposes the notions of "charge" and "brief" in identifying the causes of the final design form, or what this thesis refers to as the "end" of the design process. Using Benjamin Baker's *Forth Bridge* as an example to illustrate these two notions, Baxandall distinguishes a general problem, such as a bridge, from more specific aspects of the problem, such as strong side winds, silt, and the shiproom. The bridge represents "charge" while the others represent "brief." The general problem, the charge, relates to the purpose for the bridge (the decision to build a bridge) while the more specific problems, the brief, relate to the reasons for the form of the bridge and the circumstances under which the form was chosen. The former was probably a historical concern while the latter was more of an aesthetic concern. Through this distinction, Baxandall provides a specific viewpoint from which to observe artifacts—that is, to focus on the artifacts as a self-explanatory system instead of making references to other artifacts.

However when comparing the design of Benjamin Baker's *Forth Bridge* and the painting of Paolo Picasso's *Portrait of Kahnweiler*, Baxandall points out that a charge of an artist of a painting is more elusive than the charge of a bridge builder. The role of artists is "to make marks on a plane surface in such a way that their visual interest is directed to an end."

However, the case of the *Forth Bridge* does not meet its charge visually, nor does it attain its end primarily by being visually interesting.

Baxandall's distinction between the charge of the *Forth Bridge* and the charge of *Portrait of Kahnweiler* is relevant in our reading of Hejduk's work. As we have discussed in the introduction, architecture is a complex mix of both functional meaning and symbolic meaning. Thus, the primary argument of this thesis is that architecture can be read as a piece of art work, and it can be discussed within a broader framework across the conventional boundaries among the different art forms. Therefore, the charge of Hejduk's Diamond Series or Wall House Series cannot fairly be referred to as a house or a museum. The notions of house and museum are misleading in that they strongly relate to the practical functions of dwelling and exhibiting. If the charge of Wall House 2 were "house," it would not satisfy the notion of charge. Not only is the movement from room to room functionally inefficient, but the house also alludes to a sense of torment that would contribute to the emotional struggles of the dweller.

The charge of Hejduk's Diamond Series or Wall House Series seems to lean towards the symbolic. The charge of a Picasso painting creates visual interest, but does visual interest also constitute the charge of Hejduk's work? Indeed, it does. As discussed, Hejduk always stressed the appearance of drawing or space, particularly in the construction of flatness. In fact, flatness is essentially a visual effect in Hejduk's vocabulary. However, while we examine Hejduk's poems on paintings and re-visit Wall House 2, we discover more than a visual interest in Hejduk's articulation of otherness. Otherness is more stated in terms of the body, more specifically in the estrangement, torment, and detachment of body. One would also

suspect that the charge of Hejduk's Diamond Series or Wall House Series also entails spatial interest. Through the mediation of the viewer's body, the space is activated for an intimate communication with the one who moves around within the building.

However, the spatial interest of Wall House 2 is not detached from its function of being a house. For example, a house not only embeds different functions but also implies constant movement among the spaces of these functions. The purpose of a dwelling compels the resident to travel among the living area, the dining area, the sleeping area, and the study area. Conventionally, the flow of space among these areas would be convenient although sometimes separate. In the case of Wall House 2, these spaces are not only separated but also segregated. The elongated travel within a dark and narrow spiral stair well creates a tension with the expectation of a conventional function. It is the violation of the function of being a house that arouses the spatial interest in Wall House 2.

Moreover, the charge of Hejduk's Diamond Series and Wall House Series could also generate a conceptual interest. It seems that Hejduk always wanted his architecture to elicit conceptual interest, which extends beyond mere spatial or visual interest. Conceptual interest, often foregrounded by the conscious suppression of visual and spatial complexity, closely resembles that of Cubism, which foregrounds the interest of volume by suppressing the complexity of color into a monotone. Although the architectural elements of Hejduk's architecture are elementary and straightforward, they seem to embed a personal myth.

One may search for and discover other possible charges of Hejduk's Diamond Series and Wall House Series. In order to justify such a quest, one may find bits and pieces of evidence

from the architecture itself. Nevertheless, one may still not be able to answer the art-critical question of why Diamond Series and Wall House Series take the forms they do.

8.2 Brief: Flatness and Otherness

"The Charge is featureless. Character begins with the Brief." (Baxandall c1985, 44) The discussion on the term "brief" forces one to look at the artifacts from a constructive point of view. Baxandall compares the bridge of a bridge designer and that of a painter. He argues that to the latter, the formulation of a brief is personal. If one looks at the process of design as problem solving, the problem of a bridge designer can be objectively solved in one way while that of a painter is more subjective, with myriad possible solutions.

This thesis addresses two briefs in Hejduk's work: flatness and otherness. Although certain subjectivity was involved in the problem formulation, the choice of these two briefs can be traced back to the cultural circumstances that Hejduk faced. In the case of flatness, the most direct circumstances he may have faced are as follows. The first was his general interest in painting, particularly in Cubist painting, with its tension between two- and three-dimensionality. Another was his personal interest in Mondrian, who drew his attention to the diamond shapes as well as the idea of rotation. The last was his interest in axonometric drawing, the medium in which he worked, so he further articulated flatness in medium-related devices. Within this context, Rowe and Slutzky's two articles on transparency provide arguments to which Hejduk could respond.

As it is more closely related to personal feeling, otherness is more elusive than flatness. Hejduk's definition of otherness is "the attribute of being inexplicable." (Hejduk, 1985, 53) As mentioned in this thesis, he sees otherness in Le Corbusier's Villa La Roche. To Hejduk, the house can be read as a church, so what is apparent in a house implies something else to him. Similarly, Hejduk reads strange situations in Ingres' *To Madame D'Haussonville* from the seemingly normal portrait of a young lady. These are works of otherness that interest Hejduk.

Flatness and otherness represent the notion of brief on different levels. Flatness is a visual effect in the first place. Hejduk's axonometric drawings embed flatness in that they eliminate depicting the third dimension. Also, as Hejduk imagines, the diamond configuration also involves a perspectival effect whereby the two sides of a diamond appear to flatten out onto the hypotenuse when the viewer approaches the building from the exterior or looks at the building from the inside. However, as discussed in Chapter 5, flatness as a visual effect gives way to flatness as a concept. Only retrospectively does one realize the flattening out of the two sides of the diamond. When moving across from one corner of the diamond to the opposite, the angle sustained between the observer and the two side corners is flattened out exactly as the observer crosses the hypotenuse. Flatness also extends to a temporal dimension, the fleeting moment, in Wall House 2. Therefore, flatness is understood as a concept.

Otherness, being "the attribute of being inexplicable," (Hejduk, 1985, 53) plays against the mind. It appears as a spatial organization with straightforward elements and betraying relationships. Chapter 7 discussed how the viewer's body is alerted in the space so that otherness is triggered. At the same time, Wall House 2 plays against Corbusier's architectural

language in a non-systematic way. It is through "betraying" on a conceptual level that otherness is generated.

Hejduk read Le Corbusier's Salvation Army Building (Cité De Refuge) (Figure 8.1) as a unique composition of foreground and background: a vertical dormitory slab was seen to act as background to several dynamic and smaller volumes (an incomplete cube and a cylinder) in the front. As Hejduk said, "I felt the necessity that the wall be freestanding, acting as a tableau upon which the biomorphic elements should be suspended. The element should float, up in the air, playing off the geometric flat wall" (Hejduk 1985, 59). These principles clearly resonate with the composition of the Wall House (Figure 8.2). Hejduk admited that "certain Wall House issues began to clarify" themselves as he looked at this building (Hejduk 1985, 59). The elementary forms used in the composition can themselves be recognized in the Villa La Roche (Figure 8.3), which, as we have seen, Hejduk read in terms of otherness. Thus, the raised organic solid corresponding to the study room echoes the solid above the garden at the villa. The crossing over of the corridor reminds us of Corbusier's bridge hovering across the hall. The irregular openings of the corridor as well as the continuous openings on the organic volumes resonate in Corbusier's windows. However, Wall House 2 is not merely an elaboration of Corbusier's language, but something else that reconfigures the language and redirects it toward the expression of otherness.

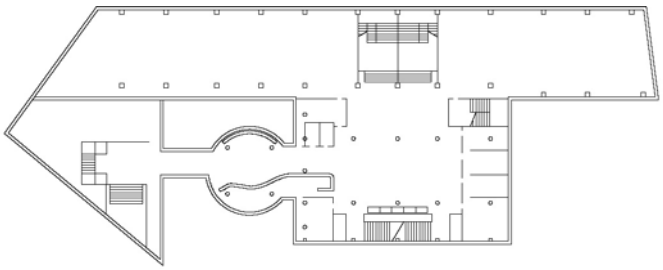


Figure 8.1 Le Corbusier's Salvation Army Building (Cité De Refuge)

Figure 8.2 Wall House 2 (Pictures by the Author)

A starting point for discussing the deflection of the vocabulary of Le Corbusier towards Hejduk's own design intentions can perhaps be provided by the idea of promenade, which was important to Le Corbusier. According to Le Corbusier, movement provides continuously changing visual fields within an architectural visual horizon that is constant over at least part of the trajectory. Thus, variety is set within one or more clearly perceived organizing frameworks. In the Wall House, movement is associated with a visual field that changes only minimally within a given horizon, as in the approach corridor, or with abrupt changes of the horizon of reference, as when the wall is crossed. The interplay between the changing shapes of visual fields according to incremental changes of local position and a relatively constant horizon is negated. One might argue that the landscape outside the house is the horizon of reference from the three living spaces. However, even this horizon is dissociated from the spaces that channel movement. The Wall House can indeed be read as a handling of movement that is equivalent to an anti-promenade. If Le Corbusier's design invites us to understand how controlled changes of views are produced as local variations of an underlying structure, Hejduk provides an aggregation of segmented views that instead defy synthesis. To achieve the qualities of promenade, Le Corbusier fundamentally works with three-dimensional space. To constrain movement into an anti-promenade, Hejduk works with two-dimensional space, alternatively horizontal and vertical. When advancing down the entrance corridor, the dining room appears as a 2-D image framed by the door; at a closer range, the forthcoming perception of the 3-D volume of the room is countered by a potentially stronger perception of the 2-D vertical plane of the wall instead; the planar threshold is set as if to momentarily override the forthcoming volume.

Figure 8.3 Wall House 2 versus Villa Roche

Another deflection occurs with regard to the treatment of the ground. The garden underneath Villa La Roche invites the viewer to move closer to the building. The garden connects the house to the ground and in turn the house claims part of the ground as its own space. In the Wall House, the ground is neither treated as a garden nor claimed as a space. On the contrary, even the space under the overhanging corridor seems abandoned. As noted earlier, the entrance meets the ground as little as possible. The canal around the house underscores discontinuity. The relationship of the house to the ground evokes otherness by appearing consistently unusual. However, the manner in which it occupies the ground is associated with another issue important in its own right. Even when Le Corbusier does not adopt the traditional distinctions of front and back, he deliberately establishes orientation of the house to the site. With Hejduk, the relationship between front and back is stated, yet it remains ambiguous. Wall House 2 provides a strong sense of a front corresponding to the three stacked major spaces and of a back encompassing circulation and the study room. This reading, however, is paradoxical, because it places the entrance at the back, as if the house must be approached from the back in order to reach the front.

However, the clear distinction between front and back is challenged yet again by a potentially more important view of the house from the direction of the thinnest side of the wall, as shown in figure 8.4. This view not only brings the two parts together but also captures the moment when an inhabitant crosses the wall. The view also resonates with a sequential section drawn for Wall House 1. This drawing portrays a progression from the sections that capture most of the elements of the building to a final section that captures only the wall itself. Traveling from left to right, the sequence leads from the full richness of the design to a residual wall as an impoverished skeleton. Traveling in reverse from right to left, the

sequence starts with the wall as structural principle and ends with a composition that is entirely an elaboration of relationships potentially implied by the wall. A comparison of the third view of Wall House 2 and the sequential section by Hejduk reveals a third view that offers a percept linked to a theoretical insight. However, the theoretical primacy of the third view is attenuated by its fleeting character.

Thus, the design of the Wall House deflects the vocabulary of Le Corbusier towards a new configuration of spatial relationships, illustrating different principles of organization, sometimes opposed to those previously adopted by Le Corbusier. Otherness inheres in the manner in which the house refers to its own architectural raw material.

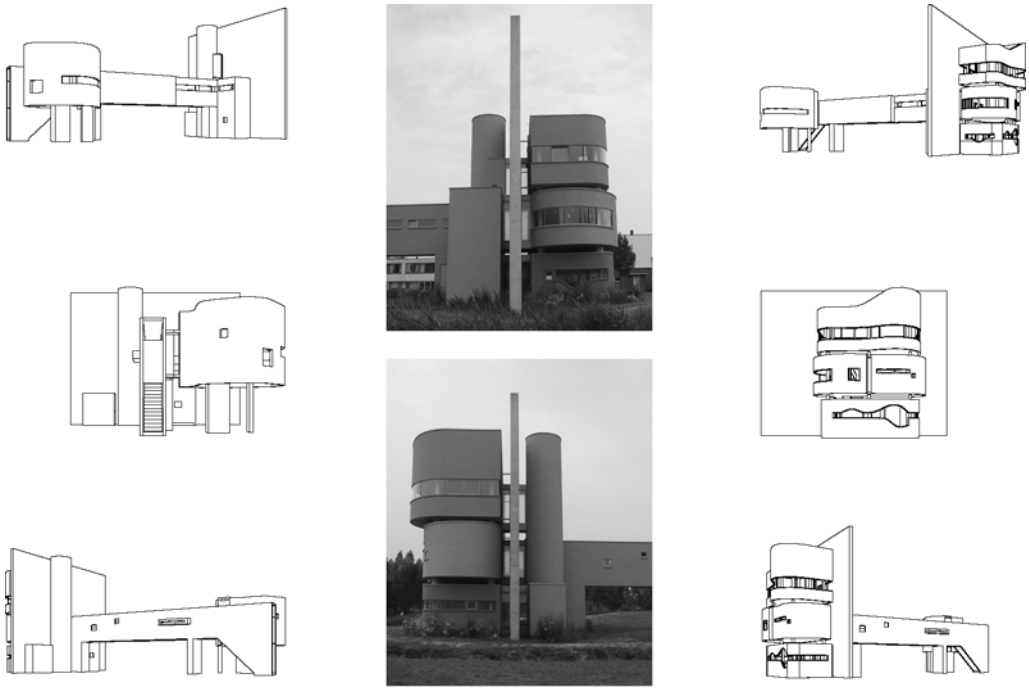


Figure 8.4 The Third View

8.3 The Key Design Move: Crossing, Cutting, and Separation at the Right Angle

The discussion of "what" to achieve is logically followed by a discussion of "how" to achieve it. In Baxandall's vocabulary, "how" is about intention, which, in the case of architecture, is an intentional architectural language. In this context, "intention" is not a psychological term but a term exemplified in the characters foregrounded in the work. In Baxandall's definition, the element of intention overlaps the element of volition behind a final piece of art work. "It is not a reconstituted historical state of mind, then, but a relation between the object and its circumstances." (Baxandall c1985, 42) Therefore, as Baxandall argues, intention is about the objects themselves instead of the historical actor.

A particular process of formulating intentions may not be reconstructed since it depends on the architect's personal style. While some may define the overall relationship first and the assign details to it, others may start from one detail and let the design grow around the detail. Therefore, intentions may be identified on different levels by approximation rather than by description of a process. However, the understanding of intentions as a dynamic interaction between the local and the global provides an important dimension on which one can examine the final work.

One may argue that one obvious intention of the Diamond Series and the Wall House Series is the diamond configuration. The Diamond Series is defined in the diamond-shaped boundary while the Wall Houses illustrate the hypotenuse of the diamond in the major wall. Another intention that one could detect in Wall House 2 is the "cut" as the key metaphor of unusualness, torment, and detachment, and hence, facilitates the construction of otherness. In relation to otherness, a strong sense of "cut" is also embedded in Wall House 2. To "cut"

is to incise, to separate, or to strike a narrow opening in. Because of "cut," the body is alerted to unusualness and tormented, and then the experience is fragmented. The narrow slices of space on both sides of the big wall clearly exemplify the action of cutting. The insertion of dark circulation space isolates the living area, the dining area, the bedroom, and the study room. This exemplifies cutting, as the continuity among these spaces is terminated suddenly. The entire house is cut into pieces.

The key design move that elaborates the intentions of the diamond configuration and "cut" is the crossing right angle. The key design move allowed Hejduk to articulate the percepts in its complexity so that we would understand them. Superficially, one may summarize the Diamond Museum as a cross of the viewer's movement and the hypotenuse of the space. One may also summarize Wall House 2 as a cross of the long corridor and the wall. The perpendicular relationship between these two dominant elements enables the viewer to experience the interior space of the house in a frontal procession (Figure 8.5a). The cross represents a perpendicular passing through a hypotenuse. In the case of the Diamond Museum, the diamond boundary of the space is obvious while the perpendicular movement through the hypotenuse is further defined by the separating elements (the free-standing and curvilinear walls). In the case of Wall House 2, the diamond shape does not exist at all, so the wall and the perpendicular long corridor define the crossing of the fleeting moment.

More importantly, the cross of architectural elements overlaps with the cross of two deep perspectives. The corridor confines the viewer's perspective in width while drawing it forward. When the wall is crossed as one turns 90 degrees to face the gap, a deep perspective is formulated along the wall, or if one continues to move forward, the deep and

narrow perspective of the corridor suddenly turns into an extremely expanded, much wider perspective (Figure 8.5b,c).

The cross is overlapped with more tension so that it is further charged and emphasized as the key. The cross itself is a threshold of contrasts. One side is comprised of the confined space of the corridor while the other side is comprised of the freer space of the major area. One side is dark while the other side is bright (Figure 8.5d). The cross also overlaps with the moment of the cut. A number of sudden spatial changes occur at the cross, which creates a clear sense of separation. It is the incision of the deep perspective along the wall that obviates the deep perspective of the corridor.

The right-angle cross qualifies as a key design move is that it is the overlapping point of several key spatial relationships. The overlapping assures the congruence of seemingly scattered qualities such as "cut," separation, and threshold. It is this key design move that lends integrity to the design.

8.4 A Question Remained

The trajectory whereby flatness and otherness have been traced in works in other media has now been completely laid out, revealed in the patterns of both conceptual structures and experience engendered by the Diamond Museum and Wall House 2, in the manner in which

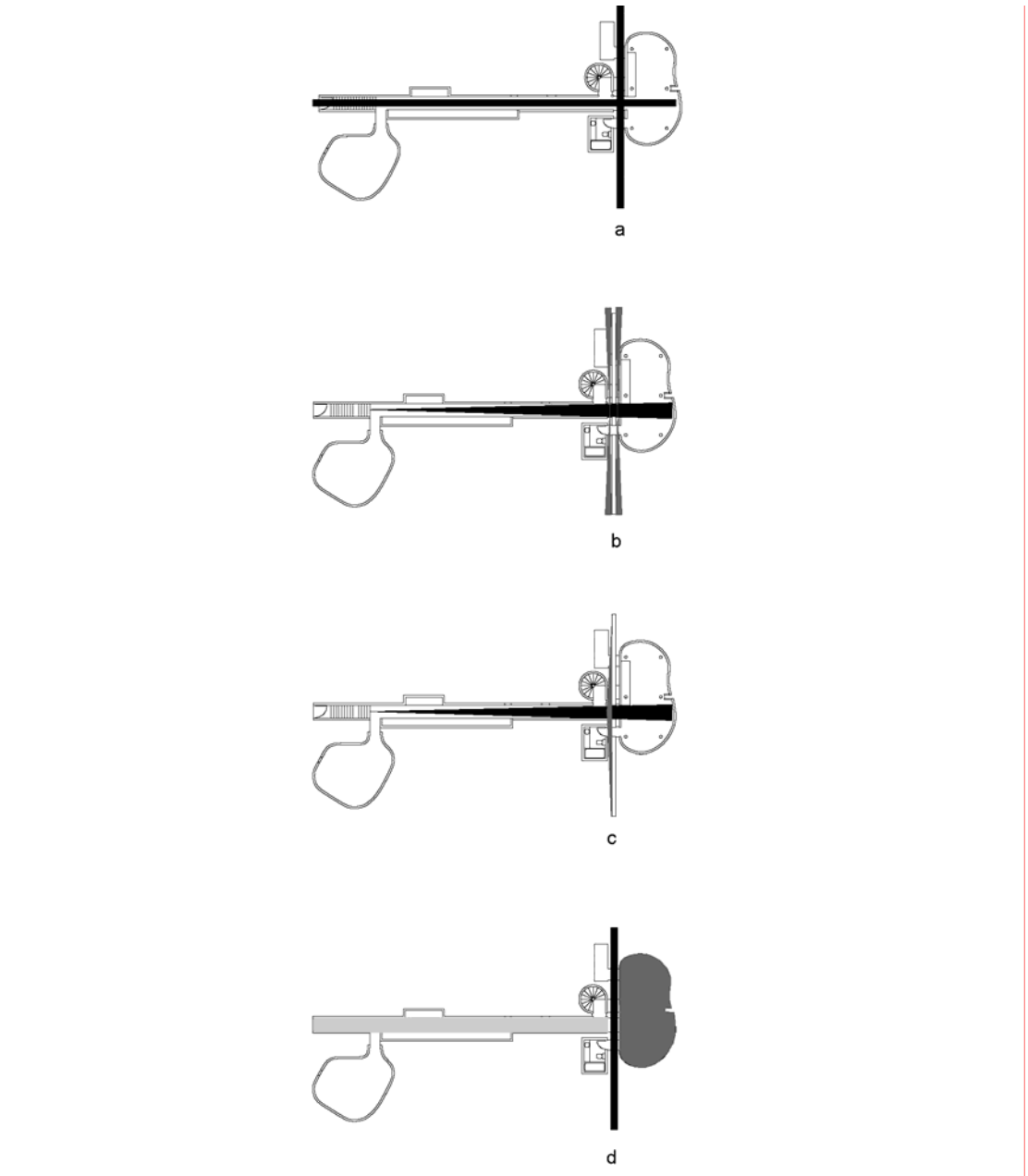


Figure 8.5 The Key Design Move: the Right Angle

Wall House 2 rejects the architectural precedents that it takes as raw material, and in the main moves that determine the design. An explicit argument that acknowledges and defines the formal properties that express flatness and otherness has been advanced, thereby linking what was otherwise mere sentiment toward the description of particular designs.

In the case of "flatness," the diamond shape in the Diamond Series, carried over from the paintings of Mondrian, provides a basis for articulating flatness in an architectural plan, which evolved as the cross-spatial relationship of passing through in the Wall House Series. In the case of "otherness," the way in which body is described in poems is extended to the challenge of the viewer's body as well as to the torment of the architectural body of Corbusier in Wall House 2. The difference between these two cases is that the former represents the visual to visual while the latter represents a metaphor. In other words, the poems did not allude to any shape that could be adapted to the design of architecture. Therefore, working across media is not only a decision but also, more importantly, a process and methodology through which intention is triggered in work. Here, intention is not an aim but a specific treatment in media. To an architect, the real purpose of working across media could not be fulfilled until an architectural intention was formulated in a work.

Although the trajectory has been completed, the question that was asked at the outset—When do flatness and otherness become an architectural concept?—still remains unanswered. In practical terms, understanding a particular design does not necessarily imply knowledge about what alternative designs might be explored. In other words, it does not yet clarify in what sense we can retrospectively recognize, in the particular design, a formulation of new possibilities, if not a fully fledged set of design principles.

The analyses in this thesis, however, represent at least the initial steps toward answering this much harder question. All architecture, with the exception of the tomb, is about the creation of connected spaces. Life is accommodated not merely by a collection of connected spaces but by a configuration of connections, or a relational structure of space. The most fundamental example of flatness inherent in the design of the Diamond Museum is the creation of a neutral condition in the center that contrasts with the tension created on the periphery. The most fundamental architectural example of otherness inherent in the design of Wall House 2 is the creation of an architecture that, while providing the minimum necessary connections, continuously suggests disconnection. If the above readings are correct, the way in which flatness and otherness are transferred from works in other media to architecture touches upon the fundamental nature of space as the primary architectural medium.

The effect of conceptualizing flatness and otherness in this way is to fundamentally alter the manner in which architecture reflects the experience of time. All architecture is viewed sequentially, from multiple points of view that can be synthesized into a single image only in the mind. The fundamental perceptual thresholds that are crossed as one changes points of view always mark time, whether they are explicitly designed as notations of time or not. Hejduk's design foregrounds architecture as a deliberate notation of time in a way that emphasizes passage of time over a fleeting moment of time, discontinuity and discreteness over continuity and flow, and periodicity and return over seemingly infinite possibilities. The raw material for this deeper conceptualization of flatness and otherness is not merely the

overt formal vocabulary of specific architectural precedent but the deeper intuitions about space that serve as the foundation of modern architecture.

8.5 The Agony with Formalism

In the designs of the Diamond Museum and the Wall House 2, Hejduk takes a path that deviates from the purely formalist approach. First, these two projects embed meaning. As this study shows, one can identify flatness and otherness as the two key concepts depicted in the Diamond Museum and Wall House 2, flatness being more explicit in the Diamond Museum and otherness more explicit in the Wall House 2. Both concepts are expressions that extend beyond pure formal meaning.

Second, the meanings of the Diamond Museum and Wall House 2 are constructed through restatement across media. Therefore, based on Colquhoun's definition, the forms in Hejduk's works defy pure formalism by embedding not only meaning that is natural within the works but also meaning that is unnatural within the works. Specifically, the meanings of flatness and otherness are derived from Hejduk's reading of works in other media and from his work crossing the boundaries among these media.

Third, however, Hejduk's approach of defying pure formalism also challenges Colquhoun's definition of figure—the agent that Colquhoun uses—as opposed to form. In Colquhoun's vocabulary, figure is defined by historical convention. Neither the Diamond Museum nor Wall House 2 constructs experiences of flatness and otherness through use of architectural

language associated with these two meanings in history. Although one sees a strong connection between Hejduk's and Corbusier's architectural language, in history, Corbusier's architectural language is not associated with flatness or otherness. Hejduk may read these two meanings in Corbusier's work, but it is a personal assessment, not historical convention. Therefore, his approach of defying formalism is not the one suggested in Colquhoun's figure. Instead, Hejduk's architectural construction of flatness and otherness is based on the operation of the immediate spatial condition and overall spatial relationships.

Thus, flatness and otherness are not simply syntactical relationships. They are principles that operate the syntactical relationships and that derive from Hejduk's working across media. They are the results of re-stating meaning from system to system rather than from work to work.

8.6 Intention across Media

The aim of this thesis was an investigation of the interdisciplinary nature of Hejduk's work. Partially re-stating the meaning of other forms of art in architectural space is not equivalent to accepting that meaning as a translation of one symbolic medium to another. The meaning of each mark or symbol used in a symbolic system depends on the relationships it sustains with other symbols and marks. Thus, no dictionary can directly translate symbols and marks that belong to one system into symbols and marks that belong to another (Langer, 1942, 96). Instead, using a work in one symbolic system as a point of departure for constructing a work in another provides an opportunity in which one can become explicitly aware of the manner

in which meaning is constructed in each. Hence, the partial re-stating of ideas, insights, or feelings across symbolic systems can function as a trigger for an almost experimental interrogation of the systems themselves. As a result of the tension between works in different symbolic systems, a designer is less likely to manipulate his own symbolic system uncritically and automatically; thus, the design will be less fettered by stereotypes.

Working across media implies purposefulness. Constructing a series is a purposeful activity in its own right. A series represents a decision not only to maintain consistency but also to change. Through both consistency and change, a series is a continuous self-redefining operation and a retrospective statement of intention. Furthermore, the conscious, constant change of media foregrounds the intention that addresses the medium-specific meaning. Hejduk works exactly in this mode. His later work always reflects his earlier work. Certain architectural languages, particularly the Wall House language, repeat. More importantly, projects that do not embed visual similarities, such as the Diamond Series and the Wall House Series, are in fact connected to each other through a deeper architectural intention: the diamond configuration.

Therefore, working across media entails far more than superficial references or fanciful representations. Rather, it is a serious investigation into the construction of medium-specific meaning, which the work of Hejduk clearly exemplifies. For the same reason, Hejduk's work can be understood beyond personal or mystical expressions, becoming a tangible and, to a certain extent, logical operation and construction.

APPENDIX
ILLUSTRATION CREDITS

Unless otherwise noted all illustrations are the author's.

Hejduk, John. *Mask of Medusa: works, 1947-1983*. Edited by Kim Shkapich; Introduction by Daniel Libeskind. New York: Rizzoli, 1985.

Figures 2.1 (Base Plan); 2.2 (Base Plan); 2.4; 2.5; 2.6; 2.7; 2.8; 2.9; 2.10 (a, b, c, e); 2.11 (Base Plan); 2.12; 2.13; 2.14; 2.15; 2.16 (Black/white Inverted); 2.17; 2.18; 2.20 (e); 2.21; 2.22 (Base Plan); 2.23; 2.24; 2.25; 2.26; 2.27; 2.28; 2.29; 2.40; 2.41;
Figures 3.13; 3.14; 3.15; 3.16 (a, b); 3.17 (Base Plan);
Figure 4.8

Hejduk, John. *Riga; Vladivostok ; Lake Baikal : A Work*. Edited by Kim Shkapich. New York : Rizzoli, c1989.

Figure 2.3

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Figures 2.30

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Figures 3.21, 3.22, 3.23, 6.10

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